E1-412

A

GENERAL COLLECTION

OF THE

BEST AND MOST INTERESTING

VOYAGES AND TRA

IN ALL PARTS OF THE WORLD;

MANY OF WHICH ARE NOW FIRST TRANSLATED INTO ENGLISH.

DIGESTED ON A NEW PLAN.

BY JOHN PINKERTO

AUTHOR OF MODERN GEOGRAPHY, &c.

ILLUSTRATED WITH PLATES.

VOLUME THE FOURTH.

LONDON:

PRINTED FOR LONGMAN, HURST, REES, AND ORME, PATERNOSTER-ROW
AND CADELL AND DAVIES, IN THE STRAND.

1809.

CONTENTS

OF THE

FOURTH VOLUME.

LISTER's Journey to Paris, 1698.

Young's Travels in France,

Saussure's Attempts to reach the Summit of Mont Blanc

Ramond

LIST OF THE PLATES IN VOLUME IV.

		Page
1.	TEMPLE of Plute,	207
2.	Mountain of Puy,	214
3.	Mountain of St. Michel,	215
4.	Castle of Rochmaure,	220
5.	Costume of the South of France,	225
6.	Nice and Vaucluse,	231
7.	Mont Blanc,	677
8.	Grenoble,	
9.	Pont de Gard,	
10.	Burning Fountain,	
11.	Grapes of Saffenage,	
12.	[illegible] Chartreuse,	
13.	[illegible]	At the En
14.	The Bridge of [illegible]	
15.	[illegible] Ofelles,	
16.	Giants Causy at Bridon,	
17.	Cascade near Oysans,	
18.	The Paraclete,	

A GENERAL

A

GENERAL COLLECTION

OF

VOYAGES AND TRAVELS.

TRAVELS IN FRANCE.

A JOURNEY TO PARIS IN THE YEAR 1698.

BY DR. MARTIN LISTER.

DEDICATION.

TO His Excellency John Lord Somers, Baron of Evesham, Lord High Chancellor of England and one of the Lords Justices of England.

My Lord,

WISDOM is the foundation of justice and equity, and it seems not to be perfect, without it comprehends also philosophy and natural learning, and whatever is of good relish in arts. It is certain, my Lord, for the honour of your high station, that the greatest philosopher of this age, was one of your predecessors; nor is your Lordship in any thing behind him; as though nothing inspired people with more equity than a true value for useful learning and arts. This hath given me the boldness to offer your lordship this short account, of the magnificent and noble city of Paris, and the court of that great king, who hath given Europe so long and vehement disquiet, and cost England in particular so much blood and treasure. It is possible, my lord, you may find a leisure hour to read over these few papers for your diversion, wherein I promise myself, you will meet with nothing offensive, but clean matter of fact, and some short notes of an unprejudiced observer. But that I may no longer importune you, perpetually I used in so laborious and useful an employment, I beg leave to subscribe myself,

My Lord,

Your Lordship's most humble and most obedient servant,

MARTIN LISTER.

A JOURNEY TO PARIS, &c.

Introduction to the Reader.

THIS tract was written chiefly to ſatisfy my own curioſity, and to delight myſelf with the memory of what I had ſeen. I buſied myſelf in a place where I had little to do, but to walk up and down; well knowing, that the character of a ſtranger gave me free admittance to men and things. The French nation value themſelves upon civility, and build and dreſs moſtly for figure: this humour makes the curioſity of ſtrangers very eaſy and welcome to them.

But why do you trouble us with a journey to Paris, a place ſo well known to every body here? For very good reaſon, to ſpare the often telling my tale at my return. But we know already all you can ſay, or can read it in the Preſent State of France, and Deſcription of Paris; two books to be had in every ſhop in London. It is right, ſo you may; and I adviſe you not to neglect them, if you have a mind to judge well of the grandeur of the court of France, and the immenſe greatneſs of the city of Paris. Theſe were ſpectacles I did indeed put on, but I found they did not fit my ſight, I had a mind to ſee without them; and in matters of this nature, as vaſt cities and vaſt palaces, I did not care much to uſe microſcopes or magnifying glaſſes.

But to content you, reader, I promiſe you not to trouble you with ceremonies either of ſtate or church, or politics; for I entered willingly into neither of them, but only, where they would make a part of the converſation, or my walk was ordered me. You will eaſily find by my obſervations, that I incline rather to nature than dominion; and that I took more pleaſure to ſee Monſieur Breman in his white waiſtcoat digging in the royal phyſic garden, and ſowing his couches, than Monſieur de Saintot making room for an ambaſſador; and I found myſelf better diſpoſed, and more apt to learn the names and phyſiognomy of a hundred plants, than of five or ſix princes. After all, I had much rather have walked a hundred paces under the meaneſt hedge in Languedoc, than any the fineſt alley at Verſailles or St. Cloud, ſo much I prefer fair nature and a warm ſun, before the moſt exquiſite performances of art in a cold and barren climate.

Another reaſon, that I give you little or no trouble in telling you court matters, is, that I was no more concerned in the embaſſy, than in the failing of the ſhip which carried me over: it is enough for me, with the reſt of the people of England, to feel the good effects of it, and paſs away this life in peace and quietneſs. It is a happy turn for us, when kings are made friends again. This was the end of this embaſſy, and I hope it will laſt our days. My lord ambaſſador was infinitely careſſed by the king, his miniſters, and all the princes. It is certain the French are the moſt polite nation in the world, and can praiſe and court with a better air than the reſt of mankind. However the generality of the kingdom were through great neceſſity well diſpoſed to receive the peace: the bigots and ſome diſbanded officers might be heard at our firſt going to grumble, but thoſe alſo gave over, and we heard no more of them when we came away. But to the buſineſs.

I happily arrived at Paris after a tedious journey in very bad weather; for we ſet out of London the tenth of December, and I did not reach Paris till the firſt of January; for I fell ſick upon the road, and ſtaid five days at Bologne, behind the company, till my

my fever abated; yet notwithſtanding ſo rude a journey, I recovered, and was perfectly cured of my cough in ten days; which was the chiefeſt reaſon of my leaving London at that time of the year, and never had the leaſt return of it all the winter, though it was as fierce there as I ever felt it in England. This great benefit of the French air I had experienced three ſeveral times before, and had therefore longed for a paſſage many years; but the continuance of the war was an inſuperable obſtacle to my deſires. Therefore the firſt opportunity which offered itſelf I readily embraced, which was my Lord Portland's acceptance of my attendance of him in his extraordinary embaſſy; who ordered me to go before with one of my good friends, who was ſent to prepare matters againſt his arrival.

Now that I might not wholly truſt my memory, in what I ſaw at Paris, I ſet down my thoughts under certain heads.

I. *Of Paris in General.*

THOUGH I had much ſpare time the ſix months I ſtaid in that city, yet the rudeneſs of the winter ſeaſon kept me in for ſome time. Again, I believe I did not ſee the tithe of what deſerves to be ſeen, and well conſidered; becauſe for many things I wanted a reliſh, particularly for painting and building; however I viewed the city in all its parts, and made the round of it; took ſeveral proſpects of it at a diſtance, when well thought on, I muſt needs confeſs it to be one of the moſt beautiful and magnificent in Europe, and in which a traveller might find novelties enough for ſix months for daily entertainment, at leaſt in and about this noble city. To give therefore a ſtrict and general idea of it, and not to enter far into the vain diſputes of the number of inhabitants, or its bigneſs, compared to London; ſure I am, the ſtanding croud was ſo great, when my lord ambaſſador made his entry, that our people were ſtartled at it, and were ready the next day to give up the queſtion, had they not well conſidered the great curioſity of the Pariſians, who are much more delighted in fine ſhews than the people of London, and ſo were well-near all got into the way of the cavalcade. One thing was an evident argument of this humour, that there were ſome hundreds of coaches of perſons of the beſt quality, even ſome biſhops and lords which I ſaw, who had placed themſelves in a file to line the ſtreets, and had had the patience to have ſo remained for ſome hours.

It is alſo almoſt certain, that for the quantity of ground poſſeſſed by the common people, this city is much more populous than any part of London; here are from four to five and to ten menages, or diſtinct families in many houſes; but this is only to be underſtood of certain places of trade. This difference betwixt the two cities alſo is true, that here the palaces and convents have eat up the people's dwellings, and crouded them exceſſively together, and poſſeſſed themſelves of far the greateſt part of the ground; whereas in London the contrary may be obſerved, that the people have deſtroyed the palaces, and placed themſelves upon the foundations of them, and forced the nobility to live in ſquares or ſtreets in a ſort of community: but this they have done very honeſtly, having fairly purchaſed them.

The views alſo which it gives upon the river are admirable: that of the Pont-neuf downwards to the Tuilleries, or upwards from the Pont-Royal; and in ſome other places, as from Pont St. Bernard, the Greeve, &c. The river Seine which paſſes through the midſt of the city, is all nobly banked or keyed with large free-ſtone; and incloſes in the heart of the city two iſlands, which cauſes many fine bridges to be built to paſs over them. One of theſe iſlands called l'Iſle de Palais was all Paris for ſome ages

walk having above double the breadth to the two ſide ones; and will hold eight files of coaches, and in the middle a great open circle to turn, with fine gates at both ends. Thoſe that would have better and freer air, go further, and drive into the Bois de Bologne, others out of other parts of the town to Bois de Vincennes, ſcarce any ſide amiſs. In like manner theſe perſons light and walk in the Tuilleries, Luxembourg, and other gardens, belonging to the crown and princes, (all which are very ſpacious) and are made convenient, with many ſeats for the entertainment of all people; the lacquies and mob excepted. But of this more hereafter.

No ſort of people make a better figure in the town than the biſhops, who have very ſplendid equipages, and variety of fine liveries, being moſt of them men of great families, and preferred as ſuch, learning not being ſo neceſſary a qualification for thoſe dignities as with us; though there are ſome of them very deſerving and learned men. I ſay, they are moſt noblemen, or the younger ſons of the beſt families. This indeed is for the honour of the church; but whether it be for the good of learning and piety is doubtful. They may be patrons, but there are but few examples of erudition among them. 'Tis to be wiſhed that they exceeded others in merit, as they do in birth.

The abbots here are numerous from all parts of the kingdom. They make a conſiderable figure, as being a gentile ſort of clergy, and the moſt learned; at leaſt were ſo from the time of cardinal Richelieu, who preferred men of the greateſt learning and parts to theſe poſts; and that very frankly, and without their knowing it before-hand, much leſs ſoliciting him for it. He took a ſure way, peculiar to himſelf, to enquire out privately men of deſert, and took his own time to prefer them. This filled the kingdom of France with learned men, and gave great encouragement to ſtudy; whereof France has yet ſome feeling.

'Tis pretty to obſerve, how the king diſciplines this great city, by ſmall inſtances of obedience. He cauſed them to take down all their ſigns at once, and not to advance them above a foot or two from the wall, nor to exceed ſuch a ſmall meaſure of ſquare; which was readily done: ſo that the ſigns obſcure not the ſtreets at all, and make little or no figure, as though there were none; being placed very high and little.

There are great number of hoſtels in Paris, by which word is meant public inns, where lodgings are let; and alſo the noblemen and gentlemen's houſes are ſo called, moſtly with titles over the gate in letters of gold on a black marble. This ſeems as it were, to denote that they came at firſt to Paris as ſtrangers only, and inned publicly; but at length built them inns or houſes of their own. It is certain, a great and wealthy city cannot be without people of quality; nor ſuch a court as that of France without the daily inſpection of what ſuch people do. But whether the country can ſpare them or not, I queſtion. The people of England ſeem to have leſs manners and leſs religion, where the gentry have left them wholly to themſelves; and the taxes are raiſed with more difficulty, inequality, and injuſtice, than when the landlords live upon the demaines.

It may very well be, that Paris is in a manner a new city within this forty years. It is certain ſince this king came to the crown, it is ſo much altered for the better, that it is quite another thing; and if it be true what the workmen told me, that a common houſe, built of rough ſtone and plaiſtered over, would not laſt above twenty-five years, the greateſt part of the city has been lately rebuilt. In this age certainly moſt of the great hoſtels are built, or re-edified; in like manner the convents, the bridges

and churches, the gates of the city; add the great alteration of the ſtreets, the keys upon the river, the pavements; all theſe have had great additions, or are quite new.

In the river amongſt the bridges, both above and below, are a vaſt number of boats, of wood, hay, charcoal, corn, and wine, and other commodities. But when a ſudden thaw comes, they are often in danger of being ſplit and cruſhed to pieces upon the bridges; which alſo are ſometimes damaged by them. There have been great loſſes to the owners of ſuch boats and goods.

It has been propoſed to dig near the city a large baſin for a winter harbour; but this has not had the face of profit to the government; ſo they are ſtill left to execute their own project. There are no laws or projects ſo effectual here, as what bring profit to the government. Farming is admirably well underſtood here.

Amongſt the living objects to be ſeen in the ſtreets of Paris, the counſellors and chief officers of the courts of juſtice make a great figure; they and their wives have their trains carried up; ſo there are abundance to be ſeen walking about the ſtreets in this manner. It is for this that places of that nature ſell ſo well. A man that has a right to qualify a wife with this honour, ſhall command a fortune; and the carrying a great velvet cuſhion to church is ſuch another buſineſs. The place of a lawyer is valued a third part dearer for this.

Here are alſo daily to be ſeen in the ſtreets great variety of monks, in ſtrange unuſual habits to us Engliſhmen; theſe make an odd figure, and furniſh well a picture. I cannot but pity the miſtaken zeal of theſe poor men; that put themſelves into religion, as they call it, and renounce the world, and ſubmit themſelves to moſt ſevere rules of living and diet; ſome of the orders are decently enough cloathed, as the Jeſuits, the fathers of the oratory, &c. but moſt are very particular and obſolete in their dreſs, as being the ruſtic habit of old times, without linen, or ornaments of the preſent age.

As to their meagre diet, it is much againſt nature, and the improved diet of mankind. The Moſaic law provided much better for Jews, a choſen people; that was inſtituted for cleanlineſs and health. Now for the Chriſtian law, though it commands humility and patience under ſufferings, and mortification and abſtinence from ſinful luſts and pleaſures; yet by no means a diſtinct food, but liberty to eat any thing whatſoever, much leſs naſtineſs; and the papiſts themſelves in other things are of this mind; for their churches are clean, pompouſly adorned and perfumed. It is enough, if we chance to ſuffer perſecution, to endure it with patience, and all the miſerable circumſtances that attend it; but wantonly to perſecute ourſelves, is to do violence to Chriſtianity, and to put ourſelves in a worſe ſtate than the Jews were; for to chooſe the worſt of food, which is ſour herbs and fiſh, and ſuch like traſh, and to lie worſe, always rough, in courſe and naſty woollen frocks upon boards; to go barefoot in a cold country, to deny themſelves the comforts of this life, and the converſation of men; this, I ſay, is to hazard our healths, to renounce the greateſt bleſſings of this life, and in a manner to deſtroy ourſelves. Theſe men, I ſay, cannot but be in the main chagrin, and therefore as they are out of humour with the world, ſo they muſt in time be weary of ſuch ſlaviſh and fruitleſs devotion, which is not attended with an active life.

The great multitude of poor wretches in all parts of this city is ſuch, that a man in a coach, a-foot, in the ſhop, is not able to do any buſineſs for the numbers and importunities of beggars; and to hear their miſeries is very lamentable; and if you give

give to one, you immediately bring a whole ſwarm upon you. Theſe, I ſay, are true monks, if you will, of God Almighty's making, offering you their prayers for a farthing, that find the evil of the day ſufficient for the day, and that the miſeries of this life are not to be courted, or made a mock of. Theſe worſhip, much againſt their will, all rich men, and make ſaints of the reſt of mankind for a morſel of bread.

But let theſe men alone with their miſtaken zeal; it is certainly God's good providence which orders all things in this world. And the fleſh-eaters will ever defend themſelves, if not beat the Lenten men; good and wholeſome food, and plenty of it, gives men naturally great courage. Again, a nation will ſooner be peopled by the free marriage of all ſorts of people, than by the additional ſtealth of a few ſtarved monks, ſuppoſing them at any time to break their vow. This limiting of marriage to a certain people only is a deduction and an abatement of mankind, not leſs in a papiſt country than a *conſtant* war. Again, this leſſens alſo the number of God's worſhippers, inſtead of multiplying them as the ſtars in the firmament, or the ſand upon the ſea ſhore; theſe men wilfully cut off their poſterity, and reduce God's congregation for the future.

There is very little noiſe in this city of public cries of things to be ſold, or any diſturbance from pamphlets and hawkers. One thing I wondered at, that I heard of nothing loſt, nor any public advertiſement, till I was ſhewed printed papers upon the corners of ſtreets, wherein were in great letters, *Un, Deux, Cinq, Dix juſq; a Cinquante Louis à a gagner*, that is, from one to fifty louis to be got; and then underneath an account of what was loſt. This ſure is a good and quiet way; for by this means without noiſe you often find your goods again; every body that has found them repairing in a day or two to ſuch places. The Gazettes come out but once a week, and but few people buy them.

It is difficult and dangerous to vend a libel here. While we were in town, a certain perſon gave a bundle of them to a blind man, a beggar of the hoſpital of the Quinzevint, telling him he might get five pence for every penny; he went to Noſtredame, and cried them up in the ſervice time; *La vie & Miracles de l'Eveſq; de Rheims.* This was a trick that was played the archbiſhop, as it was thought, by the Jeſuits, with whom he has had a great conteſt about Molinas, the Spaniſh J. doctrines. The libel went off at any rate, when the firſt buyers had read the title further, and found they were againſt the preſent archbiſhop, duke, and firſt peer of France.

The ſtreets are lighted alike all the winter long, as well when the moon ſhines, as at other times of the month; which I remember the rather, becauſe of the impertinent uſage of our people at London, to take away the lights for half of the month, as though the moon was certain to ſhine and light the ſtreets, and that there could be no cloudy weather in winter. The lanthorns here hang down in the very middle of all the ſtreets, about twenty paces diſtance, and twenty foot high. They are made of a ſquare of glaſs about two foot deep, covered with a broad plate of iron; and the rope that lets them down, is ſecured and locked up in an iron funnel and little trunk faſtened into the wall of the houſe. Theſe lanthorns have candles of four in the pound in them, which laſt burning till after midnight.

As to theſe lights, if any man break them, he is forthwith ſent to the gallies; and there were three young gentlemen of good families, who were in priſon for having done it in a frolic, and could not be releaſed thence in ſome months, and that not without the diligent application of good friends at court.

The

The lights at Paris for five months in the year only, coſt near 50,000l. ſterling. This way of lighting the ſtreets is in uſe alſo in ſome other cities in France. The king is ſaid to have raiſed a large tax by it. In the preface to the tax it is ſaid, "that conſidering the great danger his ſubjects were in, in walking the ſtreets in the dark, from thieves, and the breaking their necks by falls, he for ſuch a ſum of money did grant this privilege, that they might hang out lanthorns in this manner."

I have ſaid, that the avenues to the city, and all the ſtreets, are paved with a very hard ſand ſtone, about eight inches ſquare; ſo they have a great care to keep them clean; in winter, for example, upon the melting of the ice, by a heavy drag with a horſe, which makes a quick riddance and cleaning the gutters; ſo that in a day's time all parts of the town are to admiration clean and neat again to walk on.

I could heartily wiſh their ſummer cleanlineſs was as great; it is certainly as neceſſary to keep ſo populous a city ſweet; but I know no machine ſufficient, but what would empty it of the people too; all the threats and inſcriptions upon walls are to little purpoſe. The duſt in London in ſummer is oftentimes, if a wind blow, very troubleſome, if not intolerable; in Paris there is much leſs of it, and the reaſon is, the flat ſtones require little ſand to ſet them faſt, whereas our ſmall pebbles, not coming together, require a vaſt quantity to lay them faſt in paving.

But from the people in the ſtreets, to the dead ornaments there. There are an infinite number of buſto's of the grand monarch every where put up by the common people; but the noble ſtatues are but few, conſidering the obſequious humour and capacity of the people to perform.

That in the Place-Victoire is a foot in braſs, all over gilt, with Victoire, that is a vaſt winged woman cloſe behind his back, holding forth a laurel crown over the king's head, with one foot upon a globe. There are great exceptions taken at the gilding by artiſts; and indeed the ſhining ſeems to ſpoil the features, and give I know not what confuſion; it had better have been all of gold braſſed over; which would have given its true lights and ſhadows, and ſuffered the eye to judge of the proportions. But that which I like not in this, is the great woman perpetually at the kings back; which is a ſort of embarras, and inſtead of giving victory, ſeems to tire him with her company. The Roman victory was a little puppit in the emperor's hand, which he could diſpoſe of at pleaſure. This woman is enough to give a man a ſurfeit.

The other are ſtatues of three of the laſt kings of France, in braſs a horſeback.

That on the Pont-neuf is of Henry the fourth in his armour bare-headed, and habited as the mode of that time was.

The other of Lewis the thirteenth in the Palace-Royal, armed alſo after the mode of the age, and his plume of feathers on his head-piece.

The third is of this preſent King Louis the fourteenth, and deſigned for the Place Vendoſme. This Coloſſus of braſs is yet in the very place, where it was caſt; it is ſurpriſingly great, being 22 feet high, the feet of the king 26 inches in length, and all the proportions of him and the horſe ſuitable. There was 100,000 pound weight of metal melted, but it took not up above 80,000 pounds; it was all caſt at once, horſe and man. Monſieur Girardon told me, he wrought diligently, and with almoſt daily application at the model eight years, and there were two years more ſpent in the moulding, and furnaces, and caſting of it. The king is in the habit of a Roman emperor, without ſtirrups or ſaddle, and on his head a French large periwig a-la-mode. Whence this great liberty of ſculpture ariſes, I am much to ſeek.

It is true, that in building preciſely to follow the ancient manner and ſimplicity is very commendable, becauſe all thoſe orders were founded upon good principles in mathema-

tics: but the cloathing of an emperor was no more than the weak fancy of the people. For Louis le Grand to be thus dreſſed up at the head of his army now a-days would be very comical. What need other emblems, when truth may be had; as though the preſent age need be aſhamed of their modes, or that the Statua Equeſtris of Henry the fourth or Louis the thirteenth were the leſs to be valued for being done in the true dreſs of their times. It ſeems to me to be the effect of miſtaken flattery; but if regarded only as a piece of mere art, it is methinks very unbecoming, and has no graceful air with it.

I remember I was at the levee of King Charles the ſecond, when three models were brought him to chooſe one of, in order to make his ſtatue for the court at Windſor; he choſe the Roman emperor's dreſs, and cauſed it alſo to be executed in that other erected for him in the old Exchange in London. The like is of King James in Whitehall, and at Chelſea college, our invalids. Now I appeal to all mankind, whether in repreſenting a living prince now-a-days theſe naked arms and legs are decent, and whether there is not a barbarity very diſpleaſing in it. The father of theſe two Kings, Charles the firſt, was the prince of this age of the beſt reliſh, and of a ſound judgment, particularly in painting, ſculpture, architecture by ſea and land, witneſs the vaſt ſums of money he beſtowed upon Rubens and his diſciple Vandyke. Alſo the great eſteem he had for the incomparable Inigo Jones, who was the firſt Engliſhman in this age that underſtood building. I heard M. Auzout ſay, when he had viewed the banquetting-houſe at Whitehall, that it was preferable to all the buildings on this ſide the Alps; and I ought to believe him, he having ſtudied Vitruvius more than 40 years together, and much upon the place at Rome. Alſo the ſhip the Sovereign, which was truly the nobleſt floating caſtle that ever ſwam the ſea. Yet after all this, that King had a Statua Equeſtris of himſelf erected, now at Charing-croſs, caſt in the full habit of his own time, and which I think may compare with the beſt of that ſort at Paris.

I ſhould beg leave in the next place to viſit the palaces and men of letters and converſation: but I muſt take notice firſt of the vaſt expences that are here in iron baluſtrades, as in the Place-Royal, which ſquare is compaſſed about with one of ten feet high. Of this ſort and better there are infinite every where in Paris; which gives indeed a full view of the beauty of their gardens and courts.

Firſt, therefore, I ſaw the Palais Mazarin, in which are many good pictures, but the low gallery is furniſhed with a great collection of ancient Greek and Roman ſtatues, and is what I moſt took notice of. They were moſt brought from Rome by the Cardinal. Thoſe which are togatæ and cloathed, are as they were found; but ſuch as were made nudæ or naked, are miſerably diſguiſed by the fond humour of the Duke de Mazarin, who in a hot fit of devotion cauſed them to be caſtrated and mangled, and then frocked them by a ſad hand with I know not what plaiſter of Paris, which makes them very ridiculous. Cicero ſomewhere tells us, that ſome of the ancient wiſe men thought there was nothing naturally obſcene, but that every thing might be called by its own name; but our Celſus is of another mind, and begs pardon, being a Roman, that he wrote of thoſe things in his own tongue. It is certain upon our ſubject, the Duke ſhould not have furniſhed his cabinet and gallery with naked pictures, but with the togatæ only; or if it had once pleaſed him to do otherwiſe, he ſhould not have cloathed them; which was at beſt but a vain oſtentation of his chaſtity, and betrayed his ignorance and diſlike of good things; that is, ſpoils and hides the noble art of the ſculpture, for which only they are valuable.

But why ſhould nudity be ſo offenſive, ſince a very great part of the world yet defies cloaths, and ever did ſo; and the parts they do moſt affect to cover, is from a certain neceſſity only.

It

It is plain by theſe and many other elegant ſtatues I ſaw at Verſailles, moſt of which were taken out hence, that the Roman cloathing was the moſt ſimple thing imaginable, and that a Roman was as ſoon undreſſed, as I can put off my gloves and ſhoes. The men and women went dreſſed much alike. As for the faſhion of the Roman habit, it is evident by theſe ancient ſtatues, (which Oct. Ferrarius has well and reaſonably followed in explicating the ſeveral garments of the ancients) that the tunica or ſhirt was without a collar or ſleeves, and girt high up under the breaſts; alſo, that the toga or gown was a wide and long garment open at both ends, and let down over the head, and ſupported by the left hand thruſt under the ſkirts of it, whilſt the top of it reſted upon the left ſhoulder. The right hand and arm was naked, and above the gown, ſo that the gown was ungirt and always looſe. Now for the purpoſe, when a Roman made himſelf naked for a bath, (as he daily did juſt before eating) he had nothing to do but draw up his left hand, and the gown fell down at his feet; and at the ſame time to looſe the girdle of the tunica, and to draw up both his arms from under the tunica, and that alſo fell at his feet.

In the firſt ages of the commonwealth they wore a toga or gown only, afterwards they put on next the ſkin a tunica or ſhirt, and never added more in the very ſplendour and luxury of the empire; all other matters of cloathing, of whatever nature ſoever, have been invented ſince.

I much admired, that in the great number of ancient ſtatues to be ſeen in and about Paris, I could never meet any one but what was cloathed with a toga pura, and no repreſentation of a bullated one.

This toga and tunica both were made of fine white wool or flannel: they had not a rag of linen about them. This flannel, I ſay, was very fine; for their folds are ſmall, and it falls into them eaſily; and ſeems to be very light, by the handling of it, to raiſe it by the finger and thumb only, as is the air of ſome of the ſtatues, and the whole garment to be ſuſpended by the left ſhoulder. Upon the leaſt ſtraining of it, the breaſts and nipples are viſible through it; alſo the proportions of the thighs.

This wearing all woollen in a hot country brought on the uſe and neceſſity of frequent bathing: otherwiſe they could never have kept themſelves ſweet and clean; and the neceſſity of bathing kept them to this ſort of looſe garment; and much bathing brought in oils, and oils perfumes infuſed in them.

But in my mind a fair linen ſhirt every day is as great a preſervative to neatneſs and cleanneſs of the ſkin and health, as daily bathing was to the Romans. It is certain, had they not uſed either ſimple oils of olives, ſometimes unripe and old, for the aſtringency, and ſometimes ripe and perfumed, the warm water muſt have much decayed nature, and made the ſkin intolerable tender and wrinkled. The naked indians and blacks ſecure their ſkins by oils at this day from all the injuries of the weather, both from heat and cold.

But the beſt rule of health and long life is to do little to ourſelves. People are not aware what inconveniences they bring upon themſelves by cuſtom, how they will plead for things long uſed, and make that pleaſant, which is very deſtructive to their healths; as in the caſe of cloathing, tobacco, ſtrong waters, ſteel remedies, the drinking mineral waters, bathing, tea, coffee, chocolate, &c.

One little ſtatue I took more particular notice of, for the elegance of the ſculpture, and the humour of the dreſs; it ſtood upon a table; it was the figure of a ſybil. The face of the old woman was cut very deep into the ſtone, within the quoifure, like a hood pulled over the forehead, a very emblem of an oracle, which is hid, dark, and ambiguous.

as the woman herſelf, who would have neither her face ſeen, nor her ſaying eaſily underſtood—that is, ſhe is as it were, aſhamed of her cheat.

What was the fancy of the men of the firſt ages to make old women propheteſſes, to utter oracles, and to interpret the will of the gods by the eating of animals; to make them Sagæ and Veneficæ is reaſonable enough; for old age makes all people ſpiteful, but more the weaker ſex. To poiſon and bewitch are the ſecret revenges of impotent people.

The Jews were impatient of the company of women in their religious rites, leſt they ſhould contaminate and ſpoil all their devotion. The Romans on the contrary thought religion became women better than men, for beſides the general parts they had in common with the men in adoration of their gods, they had alſo peculiar ones, where the men were not concerned. Tully bids his wife ſupplicate the gods for him; for he tells her, he thought they would be kinder to her than him. Upon ſome ſuch principle, probably, their propheteſſes were in eſteem.

I ſaw the apartment of Monſieur Viviers in the arſenal; it conſiſts in ſeven or eight ground rooms looking into the great garden; theſe rooms are ſmall, but moſt curiouſly furniſhed, and have in them the greateſt variety and beſt ſorted china ware I ever ſaw, beſides Pagods and China pictures: alſo elegant and rich bureaus, book-caſes, and ſome paintings of the beſt maſters.

That which pleaſed me moſt, amongſt the paintings, were the pieces of Rembrants, that incomparable Dutch painter.

A girl with a cage in one hand, and looking up after the bird that had got out, and was flying away over her head: ſhe had fright, amazement, and ſorrow, in her looks. The other is an unlucky lad leaning upon a table, and looking with miſchief in his eyes, or that he watched to do ſome unhappy turn. The third is a young gentleman in a fur cap, en diſhabille, after his wonted manner. The two firſt are the moſt natural thoughts and dreſs that can be; but nothing certainly ever came near his colouring for fleſh and garments. This part he ſtudied paſſionately all his life, and was ever trying experiments about it; and with what ſucceſs, theſe and many other pieces ſhew.

Theſe three pictures of Rembrant are all of young people, and are finiſhed with all the art and perfection of colouring, as ſmooth as any limning; which makes the judgment of Philibien of him appear not juſt: for he fitted his paint according to the age and nature of the ſubjects he wrought. I had the pleaſure of ſeeing them again and again.

Monſieur le Noſtre's cabinet, or rooms, wherein he keeps his fine things, the controller of the king's gardens, at the ſide of the Tuilleries, was worth ſeeing. He is a very ingenious old gentleman, and the ordinance and deſign of moſt of the royal and great gardens in and about Paris are of his invention, and he has lived to ſee them in perfection. This gentleman is 89 years old and quick and lively. He entertained me very civilly. There were in the three apartments, into which it is divided, (the uppermoſt of which is an octagon room with a dome) a great collection of choice pictures, porcellans, ſome of which were jars of a moſt extraordinary ſize: ſome old Roman heads and buſtos, and intire ſtatues; a great collection of ſtamps very richly bound up in books; but he had lately made a draught of his beſt pictures to the value of 50,000 crowns, and had preſented them to the king at Verſailles. There was not any thing of natural hiſtory in all his cabinet.

I was ſeveral times with him, and once he carried me into an upper cloſet, where he had a great collection of medals in four cabinets, moſt modern; amongſt them there were

were four large drawers, three of which were the medals of King William, near 300 as he told me. The fourth drawer was of King William's anceſtors and family; he had been forty years in making this collection, and had purchaſed many of them at vaſt rates. He has certainly the beſt furniture for an Hiſtoria Metallica, that I ever ſaw. The French king has a particular kindneſs for him, and has greatly enriched him, and no man talks with more freedom to him; he is much delighted with his humour, and will ſit to ſee his medals, and when he comes at any medal, that makes againſt him, he will ſay, *Sire, voyla une, qu' eſt bien contre nous!* as though the matter pleaſed him, and he was glad to find it to ſhew it to the king. Monſieur le Noſtre ſpoke much of the good humour of his maſter; he affirmed to me he was never ſeen in paſſion, and gave me many inſtances of occaſions, that would have cauſed moſt men to have raged; which yet he put by with all the temper imaginable.

In this cabinet I ſaw many very rare old china veſſels, and amongſt them a ſmall Roman glaſs urn, very thick made, and ponderous, of a blue ſea colour; the two ears were feet divided into four claws, but the very bottom of this veſſel was ſmooth, and very little umblicate; and for this reaſon I cannot tell whether it might not be caſt, and not blown.

The Palace of Luxembourg is the moſt finiſhed of all the royal buildings; it is very magnificent, well deſigned, were it not for the trifling interſections or round and deep jointings of the columns, which looks like a cheeſemonger's ſhop, and which is below the grandeur of the orders; ſo hard a matter it is to have a true reliſh of the ancient ſimplicity, and not to add impertinent ornaments. And to ſay the truth, there are not many things in Paris where this chaſtity is ſtrictly preſerved; among thoſe, where little is to be blamed, are the ſouth eaſt front of the Louvre, the facade of St. Gervais, and the whole building of Val de Grace. And this wantonneſs in additional ornaments may perhaps be one reaſon, why the Doric is more practiſed there at this day, the modillions naturally admitting greater variety, and according to the intended uſe of the building.

In this palace is that famous gallery, where the hiſtory of Maria of Medicis is painted by Rubens. Though this was done 70 years ago, it is as freſh as at the firſt; ſo great a maſter he was in colouring. His fleſh is admirable, and his ſcarlet, for which, if he had not a ſecret, not now underſtood, he had leſs avarice, and more honour, than moſt of our modern painters. It is certain the goodneſs of colours was one of the great cares and ſtudies of the late famous painters; and that which ſeems moſt to have obliged them to it, was the neceſſity they put themſelves upon, to paint all their own deſigns, and more particularly the preſent dreſſes. And though Rubens in his hiſtory is too much a libertine in this reſpect, yet there is in this very place, which we now deſcribe, much truth in the habit of his principal figures, as of King Henry the fourth, the queen, her ſon, the three daughters and the cardinal; though indeed the allegoric aſſiſtants in all the tableaux are very airy and fancifully ſet out. His ſcholar St. Ant. Vandyke did introduce this novelty too much in England, where the perſons would bear it; as the female ſex were very willing to do, who ſeem in his time to have been mighty fond of being painted in diſhabille. It was this that cut out of buſineſs the beſt Engliſh painter of his time, Cornelius Johnſon, and ſhortened his life by grief. It is certain with a little patience all dreſs becomes diſhabille; but I appeal, whether it is not better and much more pleaſing to ſee the old faſhion of a dead friend, or relation, or of a man of diſtinction, painted as he was, than a foppiſh night-gown, and odd quoifure, which never belonged to the perſon painted.

But

But that which led me into this reflection was, that the modern painters have thereby an opportunity to be idle and to have others to work under them; it is ſufficient to finiſh the face, and to ſend it out to be dreſſed at the block; whereas were they obliged in honour to paint the whole dreſſes, this would make them accurate in colouring, through the great variety which would daily occur, and that noble art be in far greater eſteem.

A good artiſt might eaſily reduce it, and command the purſes of thoſe he paints, to pay well for his labour and time, for it is the lot but of very few men to excel in this noble art.

In the anti-chamber of the queen's apartment there are other paintings of Rubens, as, in three diſtinct tableaux, at the upper end of the room the ceremonies of the marriages of her three daughters, to Savoy, Spain, and England. Alſo in another hiſtorical tableau, on the ſide of the ſame room, he has painted his own picture, in a very free and eaſy poſture, next the eye, up in the very corner, looking out, as unconcerned in his own tableau, upon the three ladies. He has done his wife in ſome of the tableau, in the great gallery; but in the laſt, where the queen is mounting up to Heaven, ſhe is drawn up after her; but whether it be her full and heavy body, or her mind, ſhe is painted in a very unwilling poſture, bending back. It ſeems her huſband liked her company too well to part with her eaſily, or ſhe with him.

Several of the rooms of this apartment were wainſcoted with cedar, wrought in flowers, as her dreſſing-room and oratory; which is rare in Paris. The floors were made of ſmall pieces of wood put together in figures; the inward knots were inlaid with threads of ſilver, which have a marvellous effect; but the firmneſs, duration, and intireneſs of theſe floors, after ſo long laying, I moſt admired: whereas with us in London, and elſewhere in Paris, they prove ſo noiſy to tread on, and faulty, that they are in a few years intolerable.

It is pity the king has ſo great an averſion to the Louvre, which if finiſhed, (which he might eaſily do in two or three years) would be the moſt magnificent palace, perhaps, that ever was upon the face of the earth; and, indeed, except that be done, Paris will never arrive at its full beauty.

There are two ſtones in the fronton of the ſouth eaſt facade of the Louvre, which are ſhewed to all ſtrangers, covering the very top of it, as ſlates do, and meet in an angle. Theſe are very big, viz. 54 feet long a-piece, eight feet broad, and but 14 inches thick. The raiſing ſo high theſe two vaſt and tender ſtones was looked upon as a maſter-piece of art, equalling any thing of the ancients of that nature. They were taken out of the quarries of Meudon, where monſieur the dauphin dwells.

I ſaw in the galleries of the Louvre ſome of the battles of Alexander by Le Brun; which are by the French the moſt admired pieces of painting, that have been (ſay they) done by any man on this ſide the Alps; and of which they are not a little proud.

Alſo a large piece of Paulo Vereneſe, preſented by the Senate of Venice to the king.

I cannot paſs by unmentioned the vaſt number of great caſes in one of the galleries, wherein are the play things or puppets of the dauphin, when a child: they repreſent a camp in all its parts, and coſt 50,000 crowns.

But, indeed, that which moſt ſurpriſed me in the Louvre was the Attellier or workhouſe of monſieur Gerradon; he that made Cardinal Richelieu's tomb, and the Statua Equeſtris deſigned for the Place de Vendoſme; he told me he had been almoſt ten years in making the model and moulding and other things as I ſaid before, with aſſiduity and daily application.

He

He hath in the Louvre alſo two rooms, in one of which are many ancient marble ſtatues, and in the other are braſs ſtatues and Vaſa, and a hundred other things relating to antiquity. There is nothing in Paris deſerves more to be ſeen.

In this laſt, I ſaw a ſort of Egyptian Janus, with Silenus on one ſide, and a Bacchus on the other: with many other Egyptian figures well deſigned; all of them with a hole in the crown of the head.

Alſo a lion of Egypt very large of braſs; but the deſign rude, and more like an Indian Pagod. This alſo had a large ſquare hole in the back, near the neck. The Siamites, that came in an embaſſy to Paris, were well pleaſed to ſee this figure, and ſaid it was not unlike one of theirs; and that that hole ſerved to put the incenſe in, that the ſmoak might come out of the body and noſtrils of the lion. I doubt not but that alſo was the uſe of the open crowns of the reſt of the Egyptian figures, which I had ſeen elſewhere, as well as here; and their heads ſerved for perfuming pots for themſelves: and hence alſo might ariſe, that other ornament of radiated heads; in imitation of a bright flame kindled within, and caſting rays out of and round the head.

There was alſo a ſmall image of a lean man, caſt bent, in a ſitting poſture, with a roll of parchment ſpread open upon his knees, and he looking down upon it, reading it. This was of ſolid braſs, the head and all: this was found incloſed in a mummy. He ſeemed to have a thin linen garment on, perhaps ſuch as the Egyptian prieſts uſed to wear.

Alſo he ſhewed us the mummy of a woman intire. The ſcent of the hand was to me not unpleaſant; but I could not liken it to any perfume now in uſe with us; though I make no queſtion, but naptha was the great ingredient; which indeed is ſo unuſual a ſmell, that the mineral waters of Hogſden near London, (wherein the true naptha is ſubſtantially, and of which I have ſome ounces by me, gathered off thoſe waters) have impoſed upon the ignorant in natural hiſtory; who would make them come from a chance turpentine effuſion, or the miſcarriage of a chymical experiment.

Here were alſo great variety of urns and funeral vaſa of all materials and faſhions.

Alſo an antient writing pen coiled up, with two ends erected both alike, repreſenting the head of a ſnake.

The antient heads and buſtos in braſs are numerous and of great value. This gentleman is exceeding courteous to all ſtrangers; eſpecially to ſuch, as have the leaſt good reliſh of things of this nature, to whom he ſhews them gladly. It cannot be otherwiſe, that a man educated in that noble art of ſculpture, who ſhall daily ſtudy ſo great a variety of originals of the beſt maſters, but muſt far excel the reſt of mankind, who practice without good example, and by fancy moſtly.

I was to ſee Monſieur Baudelot, whoſe friendſhip I highly value: I received great civilities from him. He is well known by his books about the utility of voyages: he has a very choice and large collection of books of Greek and Roman learning. I made him ſeveral viſits, and had the pleaſure of peruſing his cabinet of coins, and ſmall images of copper, which are many and of good value: as Egyptian, Phrygian, Grecian, and Roman.

Amongſt his Egyptian, the moſt curious was a Deus Crepitus of admirable workmanſhip, with a radiated crown: it was an Ethiopian, and therefore beſpoke its great antiquity; for they very uſually repreſented their kings under the figures of their gods.

There was alſo the ſkeleton of a woman of ſolid copper, found in the body of a mummy, in a ſitting poſture; not unlike that other mentioned above in Monſieur Girardon's cloſet.

An Apis or a heifer in copper.

A Phrygian Priapus of elegant workmanſhip: the Phrygian Cap pointed a..... down behind, as our caps in diſhabille are now worn.

Of all which, and many more, this learned antiquary intends to write.

In his cabinet of medals I could not find one of Palmyra, for which I carefully enquired; for I was willing to add what could be found in France upon this ſubject.

He has alſo many marbles from Greece; moſt of which have been publiſhed by Spon; ſave one, and that is the moſt antient and moſt curious of all; concerning which he is ready to publiſh a diſſertation. It is a catalogue in three columns, of the names of the principal perſons of Erectheis, one of the chiefeſt tribes of Attica, that were killed in one and the ſame year in five ſeveral places, where the Athenians fought under two generals, as in Cyprus, in Egypt, in Phœnicia, in Egina, in Halies. Here are 177 names in the three columns.

The Mantis cloſes the column, who died in Egypt, that is, the phyſician. Magic and phyſic went together in thoſe days: nay, the very comedians and poets, thoſe neceſſary men of wit, fought; for none were exempt from being inrolled that were born in the kingdom or republic of Attica.

The antiquity of this marble, beſides the known hiſtory and names which juſtify the time of thoſe men: the figure of the letters are an undoubted argument; for there are no double letters here; no η, no ω, but all graved with e, o; alſo the letters, L, P, Π, R, S, are very Roman. So that it is alſo an evidence, that the Romans borrowed their letters from the antient Greek alphabet.

The invention and borrowing of letters was a great happineſs to mankind. The embarras in which writing is in China, is owing to the misfortune of wanting an alphabet; ſo that the Chineſe are forced to expreſs every ſentence and thought by a different character, which has multiplied their writing to 120,000 characters; of which yet they have leſs need, than we in Europe, who perform all with 24 letters, (whereof five add life to the other 19, ſaith Hippocrates, which is an argument of the age he wrote in: the knowledge of grammar, i. e. reading and writing, depends upon ſeven figures, de Dieta. 1.) The Chineſe know much leſs than we; they have no other morals, they have leſs philoſophy, leſs mathematics, fewer arts, and yet much narrower knowledge of natural hiſtory, becauſe they can have the knowledge only of that part of nature which they have at home: in what therefore ſhould they employ this multitude of characters; It is, I ſay, their misfortune not to have thought of an alphabet: their common language is as eaſily learnt, and conſequently might as eaſily be writ as any in Europe.

But to return to Monſieur Budelot's ſtores. In this cabinet I alſo ſaw ſome baſſe-relieves: one of Praxiteles well deſigned; one of Muſos the comedian: amongſt the reſt of the marbles there is a baſſe-relief, very extant, and finely finiſhed, of a cupid aſleep, leaning his head upon his left arm; in his hand he holds two poppy heads. It is probable the poppies were emblematic from the power they have in love-affairs. Indeed moſt poiſons affect thoſe parts chiefly, being the great ſluce of the habit of the body, or circle of the blood; and no people uſe poppy more, and ſtand more in need of it, than the men who delight in polygamy, the Mahometans, or underſtand it better; as Olearius teſtifies.

He had an antic buſto of Zenobia in marble, with a thick radiated crown; of which he very obligingly gave me a copy, well deſigned from the original: this was brought out of Aſia by Monſieur Thevenot.

He ſhewed me a diſſertation he had written out fair for the preſs, about a certain ancient Intaglia of Madames, of Ptolomæus Auletes, or the player upon the flute: In

this the thin muſler is the moſt remarkable thing, which covers the mouth and noſe. This head is engraved upon an amethyſt.

I enjoyed this gentleman's company very often; and had much diſcourſe with him about his books of the utility of voyages; and in one converſation took the freedom to diſſent from him about the interpretation of that coin in Monſieur Seguin, which he calls Britannick.

Monſieur Boudelot reads it thus, *Jovi Victori Saturnali Io!* or *Jovi Victoria Sat. Io!* I had rather read it thus, *Io! Sat. Victoriæ Io!* upon the occaſion of his returning with the ſoldiers, filling their head-pieces with the ſhells they had gathered off the ſea-ſhore; and the little uſe of his new invented letter the digamma, which he inſtituted or borrowed from the Æolique to expreſs V conſonant.

The ſhells were a triumph much like this ſmall addition to the alphabet; which laſted no longer than his time: that is victory enough: (for ſo ſtupid a prince as Claudius) let us return with the ſpoils of the ocean, and adorn his new invented letter with a palm branch: the reverſe of this coin being a laurel-crown: both the ſigns of victory.

About the Bouſtrophedon way of writing, mentioned by Suidas and Pauſanias, or turning again as the ox ploughs, or the racers about the meta in the cirque, in my opinion it could be nothing elſe, but the ſerpentine manner of writing found in Swedeland in runique letters.

He ſhewed me alſo a ſtone taken lately out of the body of a horſe at Paris, which was his death; and dying ſtrangely, they diſſected him, that is, certain ignorant people; in the lower part of the body, (probably the bladder) was found this ſtone: it weighs, as I gueſs, two pound; it is as round as a cannon ball; it is laminated like an onion; for the firſt couche was broke up in ſome places, of a dark hair colour, and tranſparent; or like ſome cloudy agats which I have ſeen: it was very ponderous. Such like tranſparent ſtones I had a patient voided often in Yorkſhire. I ſaw another tranſparent one, which was cut out of the buttock of an alderman at *Doncaſter*; he was twice cut in the ſame place, at ſome years' diſtance. *Another* I had in ſome meaſure tranſparent, voided by a patient, which was of the very colour of a coffee berry when burnt; but of this horſe ſtone Monſieur Boudelot wrote me a letter before I left Paris, which I deſign to publiſh.

I was by invitation from Monſieur Caſſini at the Obſervatoire Royal, built on a riſing ground juſt without the city walls. This building is very fine, and great art is uſed in the vaulted cut roofs and winding ſtaircaſes. The ſtones are laid inſide, outſide, with the moſt regularity I ever ſaw in any modern building. In all this building there is neither iron nor wood, but all firmly covered with ſtone, vault upon vault. The platform a-top is very ſpacious, and gives a large and fair view of all Paris, and the country about it; it is paved with black flint in ſmall ſquares, which I make no doubt are ſet in cement or tarras, that is, the Pulvis Puteolanus.

We were ſhewed a room well furniſhed with models of all ſorts of machines; and a very large burning glaſs, about three feet diameter, which at that time of the year, viz. in the beginning of February, did fire wood into a flame, in the very moment it came into and paſſed through the focus.

I was indiſpoſed, and ſo could not accept of the favour which was offered me of ſeeing the moon in their teleſcopes; and to go down into the vault, which was contrived for ſeeing the ſtars at noon-tide, but without ſucceſs. I was told by Monſieur Roman afterwards, that he ſaw there a rock formed in the cave by the dropping of a ſpring of petrifying water; of which nature are all the wells in Paris.

In the floor of one of the octagon towers they have designed with great accurateneſs and neatneſs with ink an univerſal map in a vaſt circle. The north pole is in the centre. This is a correction of other maps upon the lateſt and beſt obſervations.

His nephew Monſieur Moraldi was with him; as for his only ſon, he was in London at that time: I afterwards was with him at his father's, a very hopeful young gentleman, and well inſtructed by his father in the mathematics, and all other uſeful learning.

The triumphal arch out of the gate of St. Antoine is well worth ſeeing; for in this the French pretend not only to have imitated the ancients, but to have out-done them. They have indeed, uſed the greateſt blocks of ſtone that could be got, and have laid them without mortar, and the leaſt ſide outward, after the manner of the ancients; but I am afraid their materials are very ſhort of the Roman, and their ſtone is ill choſe, though vaſtly great.

Indeed the deſign is moſt magnificent; it is finiſhed in plaiſter, that is, the model of it, in its full beauty and proportions.

I ſuppoſe it was intended for a gate of entrance into the city: for it fronts the great ſtreet of the ſuburbs, and has a vaſt walk planted with trees leading from it towards Bois de Vincennes.

There is nothing more built but the four parts of the foundation of the true building, raiſed only to the feet of the pedeſtals; the foundation is laid twenty-two feet deep.

Amongſt the vaſt blocks of ſtone, which take up a great compaſs before the building, I found ſeveral ſorts, all brought from the quarries not far from Paris; all of them are of a kind of coarſe grit, which will not burn into lime. They diſtinguiſh theſe ſtones into four ſorts; 1. Pierre d'arcueil, for the firſt two or three couches or lays above the foundation. This is the beſt, and hardeſt of all. 2. That of St. Clou, which is good, and the next beſt. I did not find by the blocks deſigned either for the walls of the building; or the rounds of the pillars; that the beds of ſtone of St. Clou are above two feet thick. 3. That of S. Lieu; this is but indifferent, but yet much better than that ſtone, which is taken up out of the ſtone pits in and about Paris, which makes the fourth ſort of ſtone. If it be wrought up into walls, as it is taken out of the pits, it is very apt to be flawed by the froſt: but if it be laid in the air, and kept under cover for two years, then it becomes dry and more durable.

I ſaw but one piece in Paris of the ruins of an old Roman building; it was in La Rue de la Harpe. The vaults are very high and large. The manner of building is near the ſame I formerly cauſed exactly to be figured and deſcribed at York, and which is publiſhed in the Philoſophic Tranſactions: that is, the inſide and outſide of the walls are compoſed of ſix rows of ſmall ſquare ſtones, and then four rows of flat, thin and broad Roman bricks, and ſo alternatively from the top to the bottom. Which makes it probable it was built after Severus's time: for this was the African manner of building, as Vitruvius tells us; and therefore might well be, what tradition here ſays of it, viz. part of Julian the emperor's palace or thermæ.

St. Innocent's church-yard, the public burying-place of the city of Paris for a [illegible] yet when intire (as I once ſaw it) and built round with double galleries full of ſkulls and bones, was an awful and venerable ſight: but now I found it in ruins, and the greater part of the galleries pulled down, and a row of houſes built in their room, and the bones removed I know not whither: the reſt of the church-yard in the moſt neglected and naſtieſt pickle I ever ſaw any conſecrated place. It is all one, when men, even the Roman catholics have a mind, or it is their intereſt, to unhallow things or places, they can do it with a good ſtomach; and leave the tombs of chancellors and other great

men without company or care. What nobody gets by, nobody is concerned to repair: but it is ſtrange amongſt ſo many millions of dead men, not one wonder-working ſaint ſhould ſtart up to preſerve itſelf and neighbours from contempt and ſcandal. That ſo much holy earth, brought, as it is ſaid, ſo far off, ſhould never produce one ſaint, but rather ſpew up all its inhabitants, to be thus ſhuffled and diſſipated.

Amongſt the many cabinets of Paris there is nothing finer than the collection of Monſieur Buco, Garde Rolles du Parlement. You paſs through a long gallery, the one ſide of which is a well furniſhed library, and alſo well diſpoſed in wired caſes. This gallery leads into two rooms very finely adorned with pictures, Vaſa's, ſtatues and figures in braſs, alſo with china, and the famous enammel veſſels, formerly made in Poitu, which are not now to be had; a thouſand other curious things.

I very particularly examined his large quantity of ſhells, conſiſting in near ſixty drawers. There were indeed very many of a ſort, and but few but what I had ſeen before, and figured. He very obligingly lent me thoſe I had not ſeen, to have the deſigns of them done. He had many very perfect and large ones of land and freſh-water buccina; but yet a great number were wanting of thoſe very tribes which I have publiſhed in my *Synopſis Conchyliorum*.

Here were alſo two or three very fair ones of that ſort of compreſt ſnail, which have their tail on the ſame ſide with their mouth; and the vulgar name, by which thoſe men of cabinets diſtinguiſh them, is not amiſs, viz. des lampes.

He ſhewed me a bivalve, which is not uncommon (a large blood red ſpondille) for which the late duke of Orleans gave 900 livres, which is above 50l. ſterling; and he alſo aſſured me, that the ſame perſon offered a Pariſian for thirty-two ſhells 11000 livres. Which ſum was refuſed; but the duke replied, that he knew not who was the greater fool, he that bid the price, or the man that refuſed it.

I alſo ſaw in this collection an hippocampus about four inches long, the tail ſquare thick bellied and breaſt like a miller thumb, winged not unlike a *ſort of flying* fiſh, but the fins were ſpoiled; the membranes being tore *from the* bones of the wings, the head long and ſquare like *the tail*, with a ſort of tufted muſſel. This fiſh I took to be of the Hippocampus kind; and (as he told me) it was given him by my Lady Portſmouth, poſſibly out of King Charles's collection, who had many curious preſents made him: (as one of the ſhells from the States of Holland, many of which I have ſeen in other hands, but he ſuffered them all to be diſſipated and loſt.

Here alſo was a Veſpetum Canadenſe of a moſt elegant figure, and admirable contrivance; of which I have a drawing. This is intire in all its parts; it is as big as a middle-ſized melon, pear-faſhion, with an edge running round, where it is thickeſt, from which edge it ſuddenly declines and leſſens into a point; at the very end of the point, on one ſide, is a little hole, with pulvinated or ſmooth edges inclined inward; otherwiſe it is whole, and wrought upon the twig of a tree, of a very ſmooth ſattin-like ſkin.

Alſo the ſtriated ſkin of an African aſs, ſupple and well cured, which I had never ſeen before. It is certainly a moſt beautiful animal; and, I admire, after ſo many ages that it has been known to the people of Europe, it could never be tamed, and made of common uſe, as the reſt of the horſe kind. This was only of two colours, viz. broad liſts of white and bay or chelnut colour drawn from the back down the ſides to the belly, which was all white: the liſts were parted at the back by a very narrow ridge of ſhort hair; which liſts alſo went round the legs like garters. The hair coloured ſtripes of the African aſs were, near the back, three or four fingers broad, alſo the liſt down the back was very broad.

Another ſkin of a cap-aſs I afterwards ſaw at Dr. Tournefort's; and the ſtripes were the ſame, but much broader and darker coloured; it may be from the different ages. This ſort of ſtriping ſeems to be peculiar to the aſs; for the moſt common to be ſeen with us have all a black liſt down the back; and two more, that is, on each ſide one, running down the ſhoulders.

I ſaw Monſieur Tournefort's collection of ſhells, which are well choſen, and not above one or two of a ſort; but very perfect and beautiful, and in good order, conſiſting of about 20 drawers.

There was amongſt them a very large land ſhell, the ſame which I have figured from the muſeum at Oxford, having its turn from the right hand to the left. Alſo many very excellent and large patterns of other land ſnails; alſo a freſh-water muſſel from Braſil, which I had never ſeen before; a pair of them he gave me; and many ſpecies of freſh-water buccina from the Carribee iſlands. Alſo an auris marina ſpiſſe echinata; which was new to me.

Among the ſhells the thin oyſter, which ſhines within like mother of pearl, and has in the uppermoſt end of the flat valve, near the hinge, a hole. Theſe he brought with him, and took them up alive from the rocks in Spain; he ſaid they were very offenſively bitter to the taſte. Theſe being perfect, I had the opportunity of ſeeing that hole ſhut with a peculiar and third ſhell, of the faſhion of a pouch or ſhepherd's purſe.

I ſhall ſay nothing of his vaſt collection of ſeeds and fruits, and dried plants which alone amount to 8000, and in this he equals, if not excels, all the moſt curious herbariſts in Europe. His herbariſations about Paris he gave me to carry for England, juſt then printed off; alſo he ſhewed me the deſigns of about 100 European non deſcript plants, in 8vo. which he intends next to publiſh.

He alſo ſhewed me ten or twelve ſingle ſheets of vellom, on each of which were painted in water colours very lively, one ſingle plant, moſtly in flower, by the beſt artiſt in Paris, at the king's charge. Thoſe are ſent to Verſailles, when the doctor has put the names to them, and there kept: in this manner the king has above 2000 rare plants, and they work daily upon others. The limner has two louis's for every plant he paints.

I ſaw there alſo the Veſpetum Canadenſe Maximum, about 12 inches long, and ſix in diameter; of a pear faſhion; it hangs by a long and broad loop to the twig of a tree: the broad or lower end is a little pointed, and riſing in the middle; the outward ſkin is as ſmooth as vellum, and of a whitiſh grey, next to the pearl colour. The button at the bigger end in this being broken, and the outward ſkin pilled off, I could ſee a hole of about half an inch diameter in the very middle, into which the waſps go in and out. The cells are ſexangular, but of a very ſmall ſize, not much bigger than a duck quill, or very ſmall gooſe quill; and conſequently appear very thick ſet and numerous.

He ſhewed me alſo a very great julus from Braſil, at leaſt ſix inches long, and two about, round like a cord, very ſmooth and ſhining, of a kind of copper or brazen colour: the feet infinite, like a double fringe on each ſide: this he had from F. Plumier, who afterwards gave me a deſign of it drawn by the life, and in its proper colours.

Dr. Tournefort ſhewed me a preſent which was made him by his countryman of Provence, Monſieur Boyeur d'Aguilles, of a large book in folio in curious ſtamps. This is only the firſt part of his cabinet, all graved at the author's charge; and he is ſaid to be another Peireſk, which would be happy for mankind, and a great honour to that country to have produced two Mæcenass in one age.

I was to ſee Monſieur Verney at his apartment at the upper end of the royal phyſic garden; but miſſing my viſit, went up with a young gentlemen of my lord ambaſſador's retinue, to ſee Mr. Bennis, who was in the diſſecting room, working by himſelf upon a dead body, with its breaſt open and belly gutted: there were very odd things to be ſeen in the room. My companion, it being morning, and his ſenſes very quick and vigorous, was ſtrangely ſurpriſed and offended; and retired down the ſtairs much faſter than he came up. And indeed, a private anatomy room is to one not accuſtomed to this kind of manufacture, very irkſome, if not frightful; here a baſket of diſſecting inſtruments, as knives, ſaws, &c. And there a form with a thigh and leg ſtayed, and the muſcles parted aſunder: on another form an arm ſerved after the ſame manner. Here a tray full of bits of fleſh, for the more minute diſcovery of the veins and nerves; and every where ſuch diſcouraging objects. So, as if reaſon and the good of mankind did not put men upon this ſtudy, it could not be endured: for inſtinct and nature moſt certainly abhors the employment.

I ſaw Monſieur Merrie, a moſt painful and accurate anatomiſt, and free and communicative perſon, at his houſe Rue de la Princeſſe. His cabinet conſiſted of two chambers: in the outward were great variety of ſkeletons; alſo entire preparations of the nerves; in two of which he ſhewed me the miſtake of Willis, and from thence gathered, that he was not much uſed to diſſect with his own hand. The pia mater coating the ſpinal nerves but half way down the back where it ends: the dura mater coating the lowermoſt twenty pair. Which, Willis, (as he ſaid) has otherwiſe reported.

But that which much delighted my curioſity, was the demonſtration of a blown and dried heart of a fœtus; alſo the heart of a tortoiſe.

In the heart of a fœtus, he ſhewed it quite open, and he would have it that there was no valve to the foramen ovale; which ſeemed equally open from the left ventricle to the right, as the contrary: that its diameter well near equalled that of the aorta: that the two arteries which aſcend up into the two lobes of the lungs, (and are the ramifications of the pulmonic artery, after it has parted with the canal of communication, which goes betwixt the pulmonic artery, and the lower or deſcending branch of the aorta) both put together, far exceed, if not double, the diameter of the aorta itſelf.

He therefore, not without good reaſon, affirms, that of all the blood which the vena cava pours into the right ventricle of the heart, and is thence in a fœtus forced up into the pulmonic artery, a great part is carried by the canal of communication into the deſcending trunk of the aorta, and is ſo circulated about the body, the lungs (as to that part) being wholly ſlighted: alſo that of the two remaining thirds of the blood, which is carried about the lungs, when it comes down the pulmonic vein, that which cannot be received by the aorta, (and all cannot, becauſe the aorta is much leſs than the two branches of the pulmonic artery put together) is therefore diſcharged back through the foramen ovale into the right ventricle of the heart, and ſo thrown up again with the reſt of the blood, coming from the vena cava. So that one part of the two remaining parts of the blood is daily carried about the body, as in an adult fœtus, and a third part only circulates in the lungs, paſſing by the body or grand circulation.

That all this is done to abbreviate and reduce the circulation to a leſſer compaſs, is certain; and ſo for the ſame reaſon and end, that other leſſer circulation of the liver is ſlighted by the blood, which returns from the placenta, by a canal of communication betwixt the porta and the vena cava.

The

The reaſon he gives of this, I cannot at all allow of, as being very ill grounded; and therefore I ſhall not trouble myſelf to confute, or ſo much as name it.

As for the heart of the land tortoiſe, it was preſerved in ſpirit of wine, and all the three ventricles thereof ſlit and opened; ſo that I had not all the ſatisfaction I could have wiſhed: but the left ventricle in this animal had no artery belonging to it, but did receive only the blood, which deſcended from the lungs, and convey it by the foramen ovale into the right ventricle: that the third or middle ventricle was only an appendix to the right, and had the pulmonic artery iſſuing from it. So that the blood in a tortoiſe was in a manner circulated like that in a fœtus, through the body, the lungs as it were or in good part ſlighted.

This thought of Monſieur Merrie's has made a great breach betwixt Monſieur Verney and himſelf; for which reaſon I had not that freedom of converſation as I could have wiſhed with both of them; but it is to be hoped there may come good from an honeſt emulation.

Two Engliſh gentlemen came to viſit me, Mr. Bennis and Mr. Probie. They were lodged near the royal garden, where Monſieur Verney dwells, and makes his anatomies, who in three months time ſhewed all the parts of the body to them. He had for this purpoſe at leaſt twenty human bodies, from the gallows, the chatelet, (where thoſe are expoſed who are found murdered in the ſtreets, which is a very common buſineſs at Paris) and from the hoſpitals.

They told me, Monſieur Verney pretended to ſhew them a valve, which did hinder blood from falling back into the right ventricle by the foramen ovale. This valve they ſaid he compared to the papillæ in the kidneys, muſculous and fleſhy: that if wind was blown into the vena pulmonalis, it did not paſs through the foramen ovale, but ſtop there, by reaſon of the valve: that he did believe contrary to Mr. Merrie, that no blood did circulate through the lungs in an embrio.

Again, in another converſation with Monſieur Merrie, he ſhewed me the blown heart of an embrio, and that of a girl of ſeven years old. I ſaw clearly, that the ſkin of the ſuppoſed valve of the foramen ovale, was as it were ſuſpended with two ligaments: and that in the girl's, the two ſides of the foramen ovale were drawn one over the other, and ſo cloſed the hole; but were eaſily to be ſeparated again by a briſtle thruſt betwixt them.

Alſo it ſeemed to me, that this membrane in an embrio might cover the foramen ovale, like the membrana nictans in a bird's eye, that is, be drawn over it, and ſo hinder the ingreſs of the blood from the vena cava, as often as the right auricle beats: but the dilating itſelf might give way to the deſcending blood of the vena pulmonalis; and poſſibly, the embrio living as it were the life of an inſect, can by this artifice command the heart.

I remember in diſcourſe that day with him, he told me, that Monſieur Verney had an old cat, and a young kitling juſt born, put into the air-pump before the Academie Royalle de Sciences: that the cat died after ſixteen pumps, but the kitling ſurvived five hundred pumps; which favours in ſome meaſure the command young animals have of their hearts.

At another viſit Monſieur Merrie obligingly procured for me the heart of a human embrio, with the lungs intire. He tried before me the experiment upon blowing, and alſo ſyringing water into the aorta, both which filled the auricles and ventricles, and freely came out at the vena cava only. Then he opened the right auricle and ventricle, where the foramen ovale was open only at one corner, not the tenth part

of

of its breadth; and a membrane drawn over the reſt, which membrane was faſtened to the ſides quite round. Then he opened in the ſame manner the left ventricle and auricle, and there it was evident, that that membrane which cloſed the hole, had two narrow ſtraps or muſcles by which it was faſtened to the oppoſite ſides, after the manner of ſome of the valves of the heart.

I told him that it muſt follow from this, that the foramen ovale was ſhut and opened more or leſs, at the pleaſure of the embryo, according to the neceſſities of nature, and the quantity of blood that was to paſs: that it was probable, that all inſects had a command of their hearts (of which I had given large inſtances * elſewhere), by ſome ſuch paſſage, which they could ſhut altogether, or in great part, as they had a mind, in winter, in fear, or faſting for want of food: that the ſhutting up of the paſſage in adult animals was therefore done in an inſtant, by drawing the curtain fully, which could never be again drawn back and opened, becauſe of the great torrent of blood, which now entered the right auricle, and ſtopped it in that poſture, which in time would altogether ſtiffen and loſe its motion of relaxation. As a hen, when ſhe ſleeps, draws over the membrana nictans; and likewiſe when ſhe dies, the ſame membrane covers all the eye.

Mr. Bennis procured me the heart of a human fœtus, which had but juſt breathed; the which I examined with Monſieur Litre of Caſtres in Languedoc, another very underſtanding and dextrous anatomiſt, and who teaches ſcholars of all nations the practice of anatomy. The experiments here were repeated as formerly deſcribed; both wind and water paſſed the foramen ovale, both from the vena pulmonum, and from the aorta. That which I obſerved in this heart more particularly, was, that the membrane or valve on the left ſide of the foramen ovale was flat, and extended almoſt over the hole, without any limbus round its edges, becauſe it was nothing but the very ſubſtance of the auricula ſiniſtra continued, or a proceſs thereof; but on the right ſide the vena cava being joined to the auricle, it had a riſing edge round that part of it, whence it proceeded; that is, that the two faces had contrary openings, and being drawn as it were one over the other, they ſhut the hole; but not ſo firmly, but the hole might be more or leſs open all a man's life. For thoſe two oval proceſſes ſticking cloſe together in a blown and dried heart, that is not to be much heeded: for I have ſeen them dry with the hole open; but it has been like as betwixt unglued paper, or as the urethers deſcend betwixt the ſkins of the bladder, or as the ſame happens to the ductus bilaris in its inſertion into the guts.

The ſame perſon brought me the heart of a man forty years old, in which the foramen ovale was as much open as in a fœtus new born; and the ligaments very conſpicuous, which tack the ſides of the valve to the auricle, and go over to the other ſide of the border.

I was not better pleaſed with any viſit I made, than with that of F. Plumier, whom I found in his cell in the convent of the Minimes. He came home in the ſieur Ponti's ſquadron, and brought with him ſeveral books in folio, of deſigns and paintings of plants, birds, fiſhes, and inſects of the Weſt Indies; all done by himſelf very accurately. He is a very underſtanding man in ſeveral parts of natural hiſtory, but eſpecially in Botanique. He had been formerly in America, at his return printed at the king's charge a book of American plants in folio. This book was ſo well approved of, that he was ſent again thither at the king's charge, and returned after ſeveral years wandering

about the iſlands with this cargo. He was more than once ſhipwrecked, and loſt his ſpecimens of all things, but preſerved his papers, as having fortunately lodged them in other veſſels; ſo that the things themſelves I did not ſee. He had deſigned and diſſected a crocodile; one of the ſea tortoiſes; a viper, and well deſcribed the diſſections.

His birds alſo were well underſtood, and very well painted in their proper colours. I took notice of three ſorts of owls, one with horns, all diſtinct ſpecies from our European. Several of the hawk kind and falcons of very beautiful plumage; and one of thoſe, which was coal black as a raven. Alſo (which I longed to ſee) there was one ſpecies of the ſwallow kind, very diſtinct from the four ſpecies we have in Europe.

Amongſt the fiſh there were two new ſpecies of American trouts, well known by the fleſhy fin near the tail.

Amongſt the inſects there was a ſcolopendra of a foot and an half long, and proportionably broad; alſo the julus very elegantly painted, which I had ſeen before in Dr. Tournefort's collection.

Alſo a very large wood-frog, with the extremity of the toes webbed.

Alſo a blood-red polypus, with very long legs, two of which I could diſcern by the draught were thick acetabulated. This, he told me, was ſo venemous, that upon the leaſt touch, it would cauſe an inſupportable burning pain, which would laſt ſeveral hours.

There were alſo ſome few ſpecies of the ſerpent and lizard kind.

There were but few ſhells; but amongſt them there was a murex, which dies purple, with the fiſh as it exerts itſelf in the ſea. Alſo that land buccinum, which lays eggs with hard ſhells, and for bigneſs, and ſhape, and colour, ſcarce to be diſtinguiſhed from the ſparrow eggs. And becauſe the murex and this buccinum was drawn with the animals creeping out, I deſired a copy of them, which he freely and in a moſt obliging manner granted me. He deſigned the buccinum terreſtre in the iſland of St. Domingo, where he found it.

Amongſt the vaſt collection of plants, I obſerved the torch kind and ferns were of all others the moſt numerous; of each of which there were an incredible number of ſpecies. There were two or three ſpecies of gooſeberries and currants; and ſome ſpecies of wild grapes; all which F. Plumier told me were good to eat.

He told me theſe drawings would make ten books, as big as thoſe he had publiſhed; and two books of animals. He had been often at Verſailles to get them into the king's Imprimerie, but as yet unſucceſsfully; but hoped ere long to begin the printing of them. Note, that the bookſellers at Paris are very unwilling, or not able, to print natural hiſtory; but all is done at the king's charge, and in his preſſes.

I viſited Monſieur Dacier and his lady, two very obliging perſons, and both of great worth, and very learned.

I think our profeſſion is much beholden to him, for his late elegant tranſlation of Hippocrates into French, with learned notes upon him. I wiſh he may live to finiſh what he hath ſo happily begun. I read over the two volumes he has printed with great delight.

He ſeems to favour the opinion of thoſe who think, the circulation of the blood was known to him; in which he errs undoubtedly. It is manifeſt his anatomy was rude, dark, and of little extent; but it is alſo as manifeſt, that he knew very well the effect of the circulation. As for example, 2 de Diæta. c. 12. "All the body, (ſays he) is purged

purged by reſpiration and tranſpiration, and what humour thickens, is ſubtilized and thrown out by the ſkin, and is called ſweat."

Again 3. de Diæta. c. 5. ſpeaking of a ſort of foul and impure bodies, he ſays; "More is by labour melted out of the fleſh, than the circular motion (of the blood) hath purged off. There are a great number of inſtances of this nature." In converſation I put this to him, which he avowed was all he thought.

He told me he had two more volumes ready for the preſs, and did intend not to give it over till he had gone through all the works of Hippocrates. In which volumes will be theſe treatiſes: Of Dreams: of Regimen in acute Diſeaſes: the Prognoſticks: the Prorrhetiques: the Aphoriſms: the Coaques.

On that aphoriſm he ſeemed to me to have a very happy thought, *cocta non, ſed cruda purganda ſunt*; which makes it of the ſame ſenſe with that other, *ſi quid movendum eſt, move in principio.*

I muſt needs ſay this for Madame Dacier, his wife, though I knew her by her writings before I ſaw her, the moſt learned woman in Europe, and the true daughter and diſciple of Tanaquil Faber; yet her great learning did not alter her genteel air in converſation, or in the leaſt appear in her diſcourſe, which was eaſy, modeſt, and nothing affected.

I viſited Monſieur Morin, one of the Academie de Sciences, a man very curious in minerals; of which he ſhewed me ſome from Siam, as jaſpers, onyxes, agates, Loadſtones, &c. He ſhewed me alſo excellent tin ore from Alſace. Alſo from France, a great block of a ſort of amethyſt, of two or three hundred weight. Some parts of it, (for he had ſeveral plates ſawed and poliſhed,) were very fine, and had large ſpots and veins of a deep coloured violet. It was deſigned for a pavement in marchetterie, of which he ſhewed me a Carton drawn in the natural colours.

This puts me in mind of a vaſt amethyſt I had ſeen at London, brought from New Spain, and expoſed to ſale; it weighed, as I remember, *eleven* pound odd ounces; and was moſt perfectly figured both *point and ſides*, after the manner of a Briſtol diamond, or common rock chryſtal; but this block here was rude, and without any ſhape.

I cannot ſay much of the meeting of theſe gentlemen of the Acad. Royal de Sciences, there are but few of them, about twelve or ſixteen members; all penſioned by the king in ſome manner or other.

They endeavoured in the war time to have printed Monthly Tranſactions or Memoirs after the manner of ours in London; but could not carry them on above two volumes or years, for without great correſpondence this can hardly be done. And ours is certainly one of the beſt regiſters that ever was thought on, to preſerve a vaſt number of ſcattered obſervations in natural hiſtory, which otherwiſe would run the hazard to be loſt, beſides the account of learning in printed books.

I heard Mr. Oldenburgh ſay, who began this noble regiſter, that he held correſpondence with ſeventy odd perſons in all parts of the world, and thoſe be ſure with others: I aſked him, what method he uſed to anſwer ſo great variety of ſubjects, and ſuch a quantity of letters as he muſt receive weekly; for I knew he never failed, becauſe I had the honour of his correſpondence for ten or twelve years. He told me he made one letter anſwer another, and that to be always freſh, he never read a letter before he had pen, ink, and paper ready to anſwer it forthwith, ſo that the multitude of his letters cloyed him not, or ever lay upon his hands.

The Monthly Regiſter, or Philoſophic Tranſactions, is one of the beſt copies which hath been printed in this age; it is now ſold for 13l. ſterling, and not many remaining to be had of them neither.

The abbot Bignon is preſident; nephew to Monſieur Pontchartrain. I was informed by ſome of them, that they have this great advantage to encourage them in the purſuit of natural philoſophy, that if any of the members ſhall give in a bill of charges of any experiment which he ſhall have made, or ſhall deſire the impreſſion of any book, and bring in the charges of engraving required for ſuch book, the preſident allowing it and ſigning it, the money is forthwith reimburſed by the king. As it was done in Dr. Turnefort's Elements de Botanique, the cuts of that book coſt the king 12000 livres. And the cuts intended, and now engraving for another book of new plants found in his voyages into Portugal and Spain, will coſt 100l. ſterling.

Alſo, if Monſieur Merrie for example, ſhall require live tortoiſes for the making good the experiments about the heart, they ſhall be brought him, as many as he pleaſes, at the king's charge.

Theſe, beſides their penſions, I ſay, were ſome of the advantages they have enjoyed; but the war, for this reaſon, has lain heavy upon the philoſophers too.

Mr. Butterfield is a right hearty honeſt Engliſhman, who has reſided in France thirty-five years; is a very excellent artiſt in making all ſorts of mathematical inſtruments, and works for the king and all the princes of the blood, and his work is ſought after by all the nations of Europe and Aſia.

He more than once ſhewed me (which is his great diverſion) a mighty collection of loadſtones, to the value of ſeveral hundred pounds ſterling.

Some he had as hard almoſt as ſteel, and others ſoft and friable; yet of theſe he had thoſe which were of as great virtue as any of the hard; that of the equally hard there were very great difference.

He had one which weighed naked not above a drachm, and would naked take up a drachm and an half; but ſhod would take up 144 drachms of iron, if rightly applied, that is, if the iron to be taken up did firmly and in a plain touch alike both the feet.

The beſt ſhod were theſe that follow:

1. A ſlate loadſtone, which I noted not ſo much for its ſtrength, but becauſe of its peculiar make, being fairly and diſtinctly laminous throughout, weighing one ounce and an half, draws up one pound.

2. A ſmooth loadſtone, weighing one drachm, two ſcruples, fourteen grains, draws up eighteen ounces, that is, eighty-two times its weight.

3. Another ſmooth loadſtone, weighing ſixty-five grains, draws up fourteen ounces, that is, one hundred and forty-four times its weight.

It is ſurprizing to ſee a loadſtone no bigger than a hazel nut, take up a huge bunch of keys.

We have a very large ſlate loadſtone in the repoſitory at Greſham college, at leaſt ſix inches over; this alſo is but weak: whether the laminæ do ſpoil the virtue, as though they were ſo many diſtinct ſtones packed together. And yet a loadſtone which takes up, ex. gr. 6 pound weight, cut by the axis in two halves, and both halves ſhod again, will take up eight pound.

It is plain, that experiments are better made with a terrella, or ſpherical loadſtone, than a ſquare one; and his way of capping the terrella is very well contrived.

A ſquare

A ſquare loadſtone made into a terrella, will near take up as much weight as it did before, though a great deal of the ſtone is loſt in the rounding, by virtue of the different ſhoeing.

He entertained us full two hours with experiments neatly contrived about the effects of the loadſtone.

The experiment of approaching a loadſtone to the ſpring of a watch is very fine; it cauſes the balance to move very ſwift, and brought yet nearer, to ſtop quite and ceaſe moving.

Another experiment was an inch broad plate of iron, turned into a ring of about four inches diameter, which had evidently two north and two ſouth poles, which he ſaid he had ſeen in a loadſtone, and had contrived this in imitation of nature. The working of them with filings of ſteel, drigged upon a plate, ſet upon the ring, did clearly manifeſt the double polarity.

Alſo the ſuſpending of a needle in the air, and a ball of ſteel upon the point of it, by a thread, which a weight kept down, that it could not aſcend higher than ſuch a diſtance within the ſphere of the activity of the loadſtone.

Again, the free working of the needle in water, through braſs, gold, ſtone, wood, or any thing but iron. He told us, he had a ſtone, which would work through a ſtone wall of eighteen inches.

Laſtly, he demonſtrated by many experiments, how the effluvia of the loadſtone work in a circle, that is, what flows from the north pole comes round, and enters the ſouth pole; on the contrary, what flows from the ſouth pole, enters the north, and in its way puts in order all ſuch filings of ſteel it meets with; that is, according to the diſpoſition of its own whirling, and the circular lines it keeps in its flying about the loadſtone. Indeed, it is pleaſant to ſee, how the ſteel filings are diſpoſed; and in their arrangement, one clearly ſees a perfect image of the road, which the whirling inviſible matter takes in coming forth, and re-entering the poles of the loadſtone.

He ſhewed us a loadſtone ſawed off that piece of the iron bar, which held the ſtones together at the very top of the ſteeple of Chartres. This was a thick cruſt of ruſt, part of which was turned into a ſtrong loadſtone, and had all the properties of a ſtone dug out of the mine. Monſieur de la Hire has printed a memoir of it; alſo Monſieur de Vallemont a treatiſe. The very outward ruſt had no magnetic virtue, but the inward had a ſtrong one, as to take up a third part more than its weight unſhod. This iron had the very grain of a ſolid magnet, and the brittleneſs of a ſtone.

Theſe gentlemen, who have writ of this, have in my opinion miſſed their purpoſe, when they enquire, how it comes to paſs to be thus turned; for it is certain, all iron will in time go back into its mineral nature again, notwithſtanding the artifice of melting and hammering. I have ſeen of thoſe hammered Spaniſh cannon, which had lain many years buried in the ground, under the old fort at Hull in Yorkſhire, which were thoroughly turned into brittle iron ſtone, or mine again; and would not own the loadſtone, no more than the reſt of our Engliſh iron mine, till it was calcined, and then ſhewed itſelf to be good iron again. Alſo I have ſeen and had by me, a piece of wood taken out of Lough-Neah in Ireland, which was not only good iron mine, but a loadſtone too; ſo that it is evident nature, in this ſort of mine, goes backwards and forwards, is generated and regenerated; and therefore Monſieur de la Hire has well uſed the term of vegetation in this affair, which I had done many years before him, in my book "De Fontibus Medicis Angliæ," that is, out of iron mine will grow; and out of mine, a loadſtone; as in the petrified wood.

I do not relate theſe things as though they were new diſcoveries; the world has long ſince known them by the great induſtry of our moſt learned countryman, Gilbert of Colcheſter, to whom little has been added after near 100 years, though very many men have written on this ſubject, and formed divers hypotheſes to ſolve theſe phœnomena. A Dutchman, Mr. Hartſoeker, one of the Academie de Sciences, has publiſhed a treatiſe of the principles of natural philoſophy, and has accounted for theſe and many more experiments of this nature, which he had ſhewn him by Mr. Butterfield, whom he mentions very honorably.

And yet after all, the nature of theſe effluvia are little known, and what is ſaid by Des Cartes of ſcrew-faſhioned particles, and the inviſible channels and pores and pipes of the loadſtone, are all mere fancies without any foundation in nature. It is well called by ſome a certain magnetic matter, but what properties it hath is little underſtood.

It is very ſtrange to me that a little loadſtone of that prodigious force, ſhould have ſo ſhort a ſphere of activity, and not ſenſibly to affect iron from above an inch or two; and the biggeſt and ſtrongeſt not above a foot or two. We ſee the vortices in water, how wide they work round about them, vaſtly increaſing the circles; and what little reſiſtance the air can make to a body of that ſubtilty, as the effluvia of the loadſtone, which can with eaſe penetrate all bodies whatſoever, marle, flints, glaſs, copper, gold, without any ſenſible diminution of its virtue. Again, we ſee the flame of a lamp in oil, or tallow, or wax, how ſhort it is; and how long and tapering it is in ſpirit of wine. If therefore the magnetic matter was darted out of infinite ſmall pipes, and was of the nature of a more ſubtile and inviſible flame, why does it not continue its courſe in a direct line to a great length, but return ſo ſuddenly? We ſee the perſpiration of our ſkins to riſe into the air, and continue to mount, which yet has but a weak impulſe from the heart, being interrupted and broke off when it comes out of the road of the blood into the ductus excretorii. But the circle of the magnetic matter is without any impulſe, that we know of, from the ſtone; and moves in a double circle, and with a double and contrary ſtream in the ſame pipes, contrary to the laws of the circulation of the blood in animals; which has naturally but one current, and one road round; for the whole maſs of veſſels in which the circulation of the blood is concerned, is but one continued pipe.

Until the nature of the effluvia is better known, no very ſatisfactory account can be given of the moſt common phœnomena of the loadſtone, ex. gr. why it does not draw to it all bodies alike? Why a great loadſtone, though weak, extends its virtue much farther than a ſmall one, though ſtrong? Why a loadſtone communicates its virtue to iron, as ſoon as it touches it, nay even at ſome diſtance, and gives it the properties of a loadſtone.

The truth is, the earth's being a great magnet ſeems to me a mere viſion and fable; for this reaſon, becauſe it is not iron. It is true, iron mine is the moſt common of all minerals, and found almoſt in all places; but it holds not any proportion with the reſt of the foſſils of the earth; and is not, at a gueſs, as a million to other foſſils. This ſeems evident to any one, who has well conſidered the chalky mountains and cliffs, the high rag-ſtone mountains and lime-ſtone cliffs, the ſeveral quarries and pits ſunk into the bowels of the earth for coal and lead, &c. how little iron there is to be found in compariſon of other matters. Add to this, that very little of that very iron mine, which is to found any where, is magnetic, or capable of obedience to the magnet, till it is calcined. Whence therefore ſhould all thoſe magnetic effluvia ariſe, which are

ſuppoſed every where plentifully to encompaſs the earth? and why ſhould they be ſuppoſed to be every where wandering in the air, ſince it is evident, they make haſte to return to the ſtone, that emitted them, and are as afraid to leave it, as the child the mother before it can go?

Towards the diſcovery of the nature of the effluvia of the loadſtone, ſuch particulars as theſe, in my opinion, ought chiefly to be conſidered, and proſecuted with all induſtry. The loadſtone is very good, if not the beſt iron mine. The ſole fuſion of the loadſtone turns into iron. The fire deſtroys its very virtue, and ſo does vitrification iron. Fire will make iron mine own the loadſtone, and turn to a magnet. Ruſt, (into which all iron will naturally turn) and the reduction of iron again to its mine, will take away all the magnetic capacity of iron. A loadſtone cannot be made to alter its poles, but iron may; nor be deſtroyed, but by the fire. A great and long bar of iron is naturally a loadſtone, if held up perpendicularly, and it changes its poles at the pleaſure of him that holds it: a ſtrong loadſtone looſes much of its virtue by touching iron, but after a few days recovers it again. A ſmall and weak loadſtone cannot touch to give its virtue to a great lump of iron. A loadſtone expoſed to the air is ſpoiled in time. The deeper the vein of iron mine is, where loadſtone is found, the better the ſtone, and how far this holds true, is to be conſidered: for I do not doubt, but a very hard ſtone may be found near the day, as well as deeper. A ruler or long plate of ſteel is much better touched with the virtue of the loadſtone, than a plate of mere iron of the ſame figure; but on the contrary a plate of iron ſticks much faſter to the loadſtone than a plate of ſteel; ſo as if a loadſtone draws up a plate of ſteel of three ounces, it will draw up a plate of iron of four ounces and more. Why iron faſtened to the poles of a magnet does ſo vaſtly improve its ſtrength, as to be 150 times ſtronger than when naked.

Since therefore a loadſtone is nothing elſe but good iron mine, and may be turned into iron; and iron moſt eaſily and of itſelf into loadſtone, the way to find out the nature of thoſe magnetic effluvia, ſeems to be to inquire ſtrictly into the nature of iron mine, and iron it ſelf; and not to run giddily into *hypotheſes*, before we are well ſtocked with the natural hiſtory of *the loadſtone*, and a larger quantity of experiments and obſervations relating to iron and its mine, with all the differences and ſpecies of them; which I think has hitherto been little heeded. For nature will be her own interpreter, in this, as well as in all other matters of natural philoſophy.

Mr. Butterfield, in another converſation, told me he had obſerved loadſtones, which were ſtrong without arming; and being armed, had not that great advantage by it, as one could have expected: and that on the contrary, there were others, which had a more incredible virtue when armed, than they did promiſe.

That it ſeldom happens, that a loadſtone has as much virtue in one of its poles, as in the other; and that a bit of iron is touched equally well at either of the poles of one and the ſame loadſtone.

That there are loadſtones which take up much, and which notwithſtanding are incapable of well touching iron: ſo that a ſtone armed, which takes up ſeven pound, yet cannot communicate to a ruler of iron the virtue of taking up a very ſmall needle.

That a loadſtone of ten ounces, being reduced to the weight of ſix ounces or thereabouts, did almoſt the ſame effect as before.

I cauſed Mr. Butterfield to make the flate loadſtone into a terrella, and when ſhod, it was indeed but of little force; but I obſerved its poles to lie level with the laminæ, of which it was compoſed.

N. B. A ſtrong loadſtone ought to have large irons, and a weak one but thin irons; ſo that a ſtone may be over-ſhod.

I waited

I waited upon the abbot Droine to viſit Monſieur Guanieres, at his lodgings in the Hoſtel de Guiſe. This gentleman is courteſy itſelf, and one of the moſt curious and induſtrious perſons in Paris, his memoirs, manuſcripts, paintings, and ſtamps are infinite, but the method in which he diſpoſes them, is very particular and uſeful. He ſhewed his portefeuilles in folio, of red Spaniſh leather finely adorned. In one, for example, he had the general maps of England: then the particular maps of the counties: then the maps of London, and views about it: then the ſtamps of all the particular places and buildings of note about it: and ſo of all the cities in England, and places and houſes of note of the counties.

In other book-caſes, he has the ſtamps of the ſtateſmen of England, nobility of both ſexes, ſoldiers, lawyers, divines, phyſicians, and men of diſtinction. And in this method he has all Europe by themſelves.

His rooms are filled with the heads of a vaſt number of men of note in oil paintings and miniatures or water-colours. Among the reſt, an original of King John, who was priſoner in England, which he greatly values.

He ſhewed us the habits in limning from the originals, done by the beſt maſters, of all the kings and queens and princes of France, for many ages backwards. Alſo the turnaments and juſtings at large; and a thouſand ſuch things of monuments.

He was ſo curious, that he told me, he ſeldom went into the country without an Amanuenſis, and a couple of men well ſkilled in deſigning and painting.

He ſhewed us amongſt other curious manuſcripts, a capitularie of Charles V. alſo the goſpel of St. Matthew wrote in golden letters upon purple vellum. This ſeemed to me to be later than that manuſcript I ſaw at the abby of St. Germains; that is, the letters leſs and more crooked, though indeed, the letters of the title page are exactly ſquare.

One toy I took notice of, which was a collection of playing cards for 300 years. The oldeſt were three times bigger than what are now uſed, extremely well limned and illuminated with gilt borders, and the paſteboard thick and firm; but there was not a complete ſet of them.

Among the perſons of diſtinction and fame, I was deſirous to ſee Mademoiſelle de Scuderie, now 91 years of age. Her mind is yet vigorous, though her body is in ruins. I confeſs, this viſit was a perfect mortification, to ſee the ſad decays of nature in a woman once ſo famous. To hear her talk, with her lips hanging about a toothleſs mouth, and not to be able to command her words from flying abroad at random, puts me in mind of the Sybil's uttering oracles. Old women were employed on this errand, and the infant-world thought nothing ſo wiſe as decayed nature, or nature quite out of order, and preferred dreams before reaſonable and waking thoughts.

She ſhewed me the ſkeletons of two cameleons, which ſhe had kept near four years alive. In winter ſhe lodged them in cotton; and in the fierceſt weather ſhe put them under a ball of copper full of hot water.

In her cloſet ſhe ſhewed me an original of Madame Maintennon, her old friend and acquaintance, which ſhe affirmed was very like her: and, indeed ſhe was then very beautiful.

The marquis d'Hopital, one of the Academie de Sciences, whom I found not at home, returned my viſit very obligingly. I had a long converſation with him about philoſophy and learning; and I perceived the wars had made them altogether ſtrangers to what had been doing in England. Nothing was more pleaſing to him than to hear of Mr. Iſaac Newton's preferment, and that there were hopes, that they might expect ſomething more from him: he expreſſed a great deſire to have the whole ſet of the Philoſophic Tranſactions brought over, and many other books, which he named, but had not

yet ſeen. He told me, it was not poſſible for them to continue the Monthly Memoirs, as they had done for two years only, becauſe they were but very few in number of that ſociety, and had very little correſpondence. Indeed I did inquire once of ſome of that body, why they did not take in more, ſince there were very many deſerving men in the city, as I inſtanced in F. Plumier. They owned he would be an honour to the body: but they avoided to make a precedent for the admiſſion of any regulars whatſoever.

I repaid the Marquis his viſit: he lives in a fine houſe, well furniſhed: the garden pretty, with neat trelliage, wrought with arches and other ornaments.

He expreſſed a great deſire to ſee England, and converſe with our mathematicans, whoſe works he coveted above all things, and had ordered all to be brought him over.

His lady alſo is very well ſtudied in the mathematics, and makes one of the learned ladies in Paris; of which number are Mad. Dacier, the Ducheſs of Main, Mad. Scuderie, Mad. de Vicubourg, Mad d'Eſpernon the daughter, Mad. Preſ. de Ferrand, and others, whoſe names I have forgot.

I bought the works of Pere Pezaron, a Bernardin, now Abbot de Charmoyſe near Rheims. This is a very learned and diſintereſted author, and by his free way of writing has got him enemies amongſt the regular clergy. The books I bought were his "Antiquities or Account of Time;" "The Defence of it againſt Two Monks;" "An Eſſay or Commentary upon the Prophets;" "The Hiſtory of the Goſpel."

He is now upon giving us the "Origin of Nations," where he will ſhew, that Greek and Latin too came from the Celtique or Bas-breton; of which country he is. He told me he had eight hundred Greek words perfect Celtique. I ſettled a correſpondence betwixt him and Mr. Ed. Floid; which he moſt readily granted, and which he ſaid he had long coveted.

Monſieur Spanheim, now Envoy Extraordinary from the Duke of Brandenburgh at Paris, told me, that the King of France's collection of medals is far the beſt in *Europe*, or that ever was made. Having the opportunity of diſcourſing *him often*, his ſick lady being my patient, I inquired more particularly *of him*, what he had ſeen of Palmyra, of Zenobia, Oedenatus, Vabalathus. He deſired a memoir of me, which I gave him, of what I would have him ſearch for in the king's cabinet, and promiſed me all the ſatisfaction he could give me in that affair.

I told him I had met with nothing yet, but a fair buſto in white marble of Zenobia, in the cabinet of M. Baudelot; which was part of Monſ. Thevenot's collection of marbles from the Eaſt.

I was to wait on Monſ. Vaillant at his apartment in the Arſenal. I found only his ſon at home, who very civilly entertained me; and ſhewed me a book in quarto of his fathers of Greek Medals, near printed off; but without cuts. The title was "Nummi Græci Imperatorum;" he goes down no lower than to Claudius Gothicus. He has added a large appendix, with references to all the moſt remarkable heads about the cities and the people.

I left a memoir with his ſon; and in a ſecond viſit, I found the old gentleman at home, very buſy in his flower garden; of which I ſhall ſpeak hereafter.

He told me, as to the memoir I had left, he had never ſeen any coins of Oedenatus; yet he had very lately parted with one of Zenobia to the Duke of Maine. As for Vabalathus, he had ſeen ſome of him in braſs; and one he had in ſilver, which he very obligingly made me a preſent of; and that this was the only ſilver coin he had ever met with of him.

This

This is his reading of it.

VABALATHUS. V. G. R. IMP. R.
Vices gerens Imperii Romani.
Les autres y lisent mal. YCRIMOR.

He gave me alſo the ſtamps of the heads of Zenobia and Vabalathus, done from the king's medals. Theſe were deſigned for a ſhort hiſtory of all the emperors and empreſſes, which he has by him written in French, but not publiſhed. Nothing could be more civil and frank than this gentleman, whom I believe to be the beſt medaliſt in Europe: he told me he had made twelve voyages all over Europe and Aſia minor on purpoſe. That he had ſeen and deſcribed the contents of more cabinets, than any man ever did before him; and it is evident by his works, that he has made good uſe of them.

I had a viſit from Mr. Cunningham, tutor to my Lord Lorne, a very learned and curious man in books. I aſked him (knowing him to have been lately at Rome) very particularly about the papers of Monſieur d'Azout. He told me that he ſaw him not above half a year before he died, and was very intimately acquainted with him, and ſaw him for a twelvemonth very often. That he told him that he had about eighty difficult paſſages in Vitruvius, which he had commented and explained; and the correction of a great number of errata in the text. Alſo that upon Julius Frontinus (though that was a much leſs book) he had much more to ſay, than he had upon Vitruvius. What is become of his papers I could not learn from him, nor any in Paris.

Monſieur d'Azout was very curious and underſtanding in architecture; for which purpoſe he was ſeventeen years in Italy by times; I do remember, when he was in England about fourteen years ago, he ſhewed me the deſign of ſeveral of our buildings drawn by himſelf; but of that of the banquetting-houſe at Whitehall, he expreſſed himſelf in very extraordinary terms, telling me, it was the moſt regular and moſt finiſhed piece of modern workmanſhip he had ſeen on this ſide the Alps, that he could not enough praiſe it: that Inigo Jones, the architect, had a true reliſh of what was noble in that art.

It is now time to leave the private houſes, and to viſit the public libraries; and with them ſuch perſons, as are more particularly concerned in the hiſtory of learning.

Monſieur l'Abbe Drouine came to viſit me at my lodgings. I returned the viſit the next day at his apartment in the College de Boncourt. He had four or five little rooms well furniſhed with books; in the biggeſt he had a collection of catalogues of books, and of all ſuch, who had wrote the accounts of authors; above 3000 in all languages. He told me, he had ſtudied the Hiſtory of Books with the utmoſt application eighteen years, and had brought his memoirs into a good method; that he had thoughts of printing the firſt tome this year, which would be of the moſt ancient authors, Greek and Latin; that he intended to continue them throughout all the ſucceeding ages down to our times; which he ſaid he had performed in good part.

He ſhewed me the Catalogue of authors in four very thick folio's; alphabetically diſpoſed by family names, under ſome ſuch title as this: "*Index alphabeticus omnium Scriptorum, cujuſcunque facultatis, temporis & linguæ.* Thoſe came to about 150,000.

He alſo ſhewed me his alphabetic memoirs in ſheets of the authors and books they had wrote, and in great forwardneſs. And laſtly, the Chronological Catalogue, in which form he intends to print the whole.

He is a very civil and well tempered perſon, very learned and curious, and of a middle age, fit to continue and finiſh ſuch a laborious work. I was infinitely obliged to him for his frequent viſits.

I was

I was to wait on Monſieur Gurnier, one of the heirs of Monſieur Thevenot, to ſee the remains of that famous man's library. There are a great number of Oriental MSS. yet unfold.

He ſhewed me the MS. of Abulfeda, with its Latin verſion, done by Monſieur Thevenot; and the matrices and forms of Arabic letters, which he had, at his own charge, cauſed to be cut for the printing of certain proper names in it.

He went or deſigned to go into England and Holland to get it printed, but was called back by Monſieur Louvois's order to print it in France at the king's charge; but the late wars coming on, it was ſet aſide, and is like to be ſo; for he was turned out of his place of library-keeper to the king, and died in diſgrace.

Thoſe great number of Oriental books he had moſt from his nephew, whom he ſent abroad for that purpoſe, and who died in his travels.

This man was, as it were, the founder of the Academie des Sciences, and was in his own nature very liberal, and gave penſions to many ſcholars.

Amongſt other things I ſaw there a large dictionary or grammar of the Algonquin tongue, one of the nations of the Weſt-Indies. The fugitive jeſuit, who wrote it, dwelled among them twenty years. Here I alſo ſaw a hiſtory, with large and accurate deſcriptions of the quadrupeds of that part of the Weſt-Indies by the ſame author.

As for the papers of Swammerdam, which indeed were the things I moſt coveted to ſee, they were much beneath my expectation, not anſwering the printed catalogue of Thevenot, p. 239. There were indeed ſome corrections of the figures of his general Hiſtory of Inſects, and ſome additions, as though he intended another edition of that book.

Alſo towards a particular hiſtory, there were ſome ſmall treatiſes, or rather ſome figures only of the tadpole. Again, figures relating to the natural hiſtory of a certain day butterfly; of the aſilus; of the ſcuttle fiſh; of the Scarabæus Naſicornis; and ſome conſiderable number of ſnails, as well naked, as fluviatil, and ſea diſſected; at leaſt figured with their bodies exerted, and ſome of their bowels extracted; and which ſeemed to me to be well underſtood and delineated. There were two or three ſtiched books in Dutch of four or five ſheets apiece, belonging to thoſe plates or figures. But the gentleman would not part with any of them, becauſe, he ſaid, they had been ſecured by the abbot Bignon, for the King's uſe. However, all theſe I judge were worth printing, when it ſhall pleaſe that ſociety to do it.

Laſtly, I ſaw in his cuſtody a fair MS. of Michael Servetus, with a treatiſe at the end of it, which, as he ſaid, was never publiſhed; being a compariſon of the Jewiſh and Chriſtian law, its juſtice and charity.

Monſ. l'Abbe de Brillac, almoner to the Prince of Conti, very obligingly offered to carry me to the king's library; but I civilly declined it, for I had been told, it was better to make viſits by one's ſelf: for no ſtranger but was very welcome at all times; not only on the days it was publicly open, as it is upon Tueſdays and Fridays.

Monſ. Clement, the deputy library keeper, made us welcome, and invited us to come again, and ſpend a whole day with him. He made me in particular a very great compliment, as a conſiderable benefactor to that place, ſhewing me moſt of the books, and the names of the reſt, I had publiſhed in Latin; and ſhewed a great ſatisfaction, that he had got the Synopſis Conchyliorum, which he had cauſed to be bound very elegantly. I told him that I was very ſorry to ſee it there, and wondered how he came by it; for it was, I aſſured him, but a very imperfect trial of the plates, which I had diſpoſed of to ſome few friends only, till I ſhould be able to cloſe and finiſh the deſign; which I now had done to my power. and would redeem that book with a better copy at my re-

turn into England: the ſame promiſe I renewed to the abbe Louvois, the library keeper, at his own inſtance, when I had the honour to dine with him. The reader will pardon me the vanity, if I tell him, that this book was no inconſiderable preſent, even for ſo great a prince, as the King of France; for that beſides the time that it took me up (ten years at leaſt) at leiſure hours, to diſpoſe, methodiſe and figure this part of natural hiſtory, it could not have been performed by any perſon elſe for leſs than 200l. ſterling; of which ſum yet a great ſhare it ſtood me in, out of my private purſe. This young gentleman is brother to Monſieur Barbeſieux, intendant of the affairs of war; he takes great care to apply himſelf to his ſtudies, and for that purpoſe has two of the Sorbone conſtantly with him to inſtruct him. He lives great, and has a houſe, which joins upon the king's library, of which he is keeper. We were entertained by him with all the civility imaginable, and freedom of converſation.

This library is now placed in a private houſe, and taken out of the Louvre, but it is intended to be removed to the Place de Vendoſme, where one ſide of that magnificent ſquare is deſigned for it. In the mean time it is here moſt commodiouſly diſpoſed into twenty-two rooms; fourteen above ſtairs, and eight below and above. Thoſe below are philoſophy and phyſic, and the ſhelves are wired, to ſecure them. Above are the books of philoſophy and human learning; and it is in thoſe rooms only the promiſcuous crowd are admitted twice a week. In the middle rooms, which makes the great body of the library, are, for example, catalogues of books; hiſtories in one of England and Holland; in another the hiſtories of France and Germany; in another the hiſtories of Italy, Spain, &c. in another bibles of all ſorts, and the interpretations; in another Greek MSS. in another Latin MSS. in another the civil and municipal laws of all nations; in another the original papers of the ſtate; in another ſtamps, where, by the by, the king had the collection of Monſ. Marolles to divert him, in one of his ſickneſſes, bought in at a vaſt ſum. The catalogue alone of theſe ſtamps, no bigger than two ſmall almanacks, coſt me fourteen livres; ſo much ſtrangers are impoſed upon by the crafty bookſellers of Rue St. Jacques; but it is not in France alone where people are made to pay for their humour.

They have two indexes of this library; one relating to the matter and contents of books; and another index of authors, wherein are all the works they have of them, and the titles of all likewiſe that they know of, that are wanting, with an aſteriſm to ſuch in the margin; which is well done, that they may know what they have to buy in. It is indeed a vaſt collection, and worthy ſo great a prince. This library conſiſts at leaſt of fifty thouſand volumes of printed books; and fifteen thouſand MSS. in all languages.

They work daily and hard at the catalogue, which they intend to print; I ſaw ten thick folio's of it, fairly tranſcribed for the preſs. It is diſpoſed according to the ſubject matter of the books, as the bibles and expoſitors, hiſtorians, philoſophers, &c. They purpoſe to put it into the preſs this year, and to finiſh it within a twelvemonth.

In the king's library I was ſhewn an ancient Greek MS. of Dioſcorides, wrote in a ſort of thin or narrow capitals, with the plants painted in water-colours; but the firſt book was wholly wanting, and therefore the animals not there, which yet was what I moſt deſired to ſee; for there are ſome things relating to them, which we are at this day in great doubt of; and it would have been ſome ſatisfaction to have ſeen by the pictures, what the middle ages, at leaſt, had thought of them.

In the ſame room alſo we were ſhewn the epiſtles; which was one part of the ſame MS. which we have at Cambridge, which is the goſpels only. Beza was poſſeſſed of ours, from whom we had it. It is written in ſquare capitals, and very ſhort lines, and

much worn out in many places. This comes much ſhort of the Alexandrian MS. at St. James's for beauty and antiquity.

There was another MS. of the goſpel of St. Matthew, which was but of late diſcovered; a very fair volume in a large folio. This was cut to pieces in the back, and had been ſhuffled and bound up again; and another book overwritten in a ſmall modern Greek hand, about 150 years ago. The firſt writing was turned ſo pale that they took no pains to rub it out. One of the library keepers obſerving this, hath reduced it again by paging it a-new; and with a little heeding it is yet very legible. The letter is as fair a ſquare capital as any I have ſeen. There are ſome interpolations very notorious, as about the deſcent of the ſick man into the pool of Bethesda; which I ſuppoſe will be accounted for by the induſtrious and learned collator.

I obſerved the China manuſcripts which father Beauvais brought this year as a preſent to the king. They are about forty-four packs of ſmall books, of a long quarto faſhion, put up in looſe covers of a purple ſatin glued on paſteboard; of natural hiſtory, of dictionaries relating to the expoſition of their characters, &c.

The king had a ſet much of the ſame before in white ſatin, with their titles.

Here alſo I ſaw the third decad of Livy, a large quarto in vellum, without diſtinction of words in fair large capitals. It is ſuppoſed by Monſieur Baluze to be 1100 years old.

Yet the manuſcript of Prudentius Hymnes, which was alſo ſhewed us, is a much fairer letter, and therefore thought to be older by one century at leaſt.

Here alſo I ſaw a famous Latin roll or volume, written on Ægyptian paper, intitled, *Charta Plenariæ Securitatis*, taken the 38th year of Juſtian; it is fairly engraved and interpreted letter by letter upon copper by Monſieur Thevenot. I ſaw the print thereof: it is wrote long-ways the roll and not croſs, in three columns: the column in the middle is three times as long as the two end columns. The roll is not above a foot broad.

They ſhewed us alſo in this houſe the apartment of Monſieur Huygens, which was very noble, and well for air, upon the garden: but here he fell melancholy, and died of it in Holland. He ſhewed the firſt tokens of it by playing with a tame ſparrow, and neglecting his mathematic ſchemes. It is certain, life and health of body and mind are not to be preſerved, but by the relaxation and unbending the mind by innocent diverſions. For ſleep is nothing elſe that I know of, but the giving up the reins, and letting nature to act alone, and to put her in full poſſeſſion of the body. We have a convincing inſtance of this, in being in bed awake. No man can lie ſtill ſcarce three minutes without turning; and if it come not preſently upon us, we muſt turn again and again, and at length we become ſo intolerably weary, that our bed is a very rack to us. Whereas, if we chance to fall aſleep, though we lie in one and the ſame poſture ſeven hours, we ſhall wake freſh and without pain, as though the body did not weigh at all upon itſelf in ſleep. It is certain, the nerves and muſcles are in little or no tenſion in ſleep; but when we are awake, are always ſtretched and compreſſed, whence wearineſs: which, if upon our feet or ſitting, we are not ſenſible of, becauſe we remove quick and with eaſe, and of courſe; but laid, we ſoon find ourſelves very uneaſy, till we change the poſture.

But this is not all in the king's library: there are other things to be ſeen, viz. a conſiderable number of ancient Roman and Egyptian antiquities; as lamps, pateras, and other veſſels belonging to the ſacrifices; a ſiſtrum or Egyptian rattle with three looſe and running wires croſs it.

Amongſt the great variety of Egyptian idols, there was one betwixt two and three feet long of black touch-ſtone, with hieroglyphics engraven down before. I took particular notice of the grain of this ſtone; and at my return, having had the honour of a paper from Mr. Molyneux from Dublin, giving an account of the vaſt and ſtupendous natural pillars to be ſeen in Ireland, ſome of them of fifty feet high, and thick in proportion, and that the ſtones or joints, which conſtitute theſe pillars, are of the Lapis Lydius, or Baſaltes kind, having ſeen one of the joints at Greſham college, I eaſily agree with him; but much admire that the pebble kind ſhould produce ſuch regular figures; which is certainly the very hardeſt ſtone to be found in Europe, and which no tool of ours will cut.

This alſo is another inſtance (the carved obeliſks being one) of the different make and goodneſs of the Egyptian chiſels, of which, and of the retrieving the ancient temper of ſteel, I have publiſhed a diſcourſe in the Ph. Tranſactions ſome years ago.

I ſhould have had more ſatisfaction in this kind, had I met with what I earneſtly ſought for, the Egyptiam tombs, which were a long time in the garden of Monſieur Valentine at Paris; but were unluckily ſent away to his houſe at Tours, not long before our coming to Paris. One of theſe tombs is ſaid to be of black touch-ſtone, to have been brought out of the higher Egypt, and to be full of hieroglyphics. Of this in particular Kircher has written.

There is in this collection a large piece of tin ore from England, very curious; it has on one ſide of it a great number of fair and large opaque cryſtals of tin, ſhining like poliſhed ſteel. The planes of thoſe cryſtals I could not eaſily reckon; but ſure I am, having with care examined all the ſtone cryſtals I could meet with, both precious and more common, and alſo the cryſtals of all foſſil ſalts, I never before obſerved that figure in any of them, but believe them of a peculiar nature, proper to tin oar. I call them cryſtals, though opaque, becauſe angular and of one conſtant figure.

I was at the college of Clermont with Pere Hardouin; he ſhewed me the library with great civility; it conſiſts of two long galleries; the galleries are well furniſhed with books, having lights only on one ſide, and the windows are not over large; with tables under each light, very commodiouſly placed for writing and reading. Alſo certain cloſets for manuſcripts, and others for forbidden books. In this he ſhewed me a great collection of Janſenius's original letters. In the other a Greek manuſcript of the prophets, of Euſebius's own hand writing; it was in capitals, but of a different character from any I had ſeen: the letters very erect, but ſomething thinner, and not ſo ſquare.

Alſo a vulgar Latin in capitals, very ancient.

I told him I was well pleaſed with his *Pliny in uſum Delphini;* and that it was to the honour of the French nation to have laboured more particularly upon that author; *Dalechampius* firſt, then *Salmaſius's Exercitationes Plinianæ;* and laſtly, this his moſt elegant edition.

The books are well diſpoſed under gilt titles, as Medici in folio, and over againſt them, where the windows will permit, the Medici in quarto: in the other gallery runs a baluſtrade, within which are placed the octavo's and twelves.

At one end of the upper gallery is a very large tableau, an orignal of Nicolo, of the maſſacre of Agamemnon; in it there is this commendable, that in ſuch a horrid fury, and ſuch variety of murders in half naked figures, no one indecent poſture is to be ſeen.

Pere Hardouin ſeemed to doubt of the Inſcription of Palmyra put out by M. Spon; that the Greek was faulty, and the Syriac very queſtionable. I told him we had had it lately

lately copied, carefully and truly by one at Rome: which took away his objection of the multiplicity of letters.

Both he and Vallant agreed, that they had never ſeen any medal of Oedenatus. He very obligingly anſwered my memoir about Palmyra, Zenobia, and Vabalathus, with a tranſcript of all the coins he had ſeen, and had in his poſſeſſion: which follows:

Nummi Zenobiæ.

CEnTIMIA ZHNOBIA CEB. ℞. *Spes. eſt apud Seguinum*, p. 62.
Oedenati nullum vidi, niſi apud Occonem, nullum Palmyrenum.
Vabalathi apud Com. Foucalt, *rei ærariæ ac judiciariæ Præfectum in Neuſtria inferiore.*
A. K Λ. ΔOM. ΑΥΡΗΑΙΑΝϾC. CEB. *capite laureato. Sub ipſum Aureliani mentum litera* L. *abſque anni numero.*
℞. ΑΥΤ. EPMIAC OΥABΑΛΛΑΘOC ΑΘHNOΥ. *capite radiato.*
AVT. K. Λ. Δ. ΑΥPHΛIANOC CEB. *capite laureato.* L. A.
℞. AVT. EPMIAC. OΥABΑΛΛΑΘOC. ΑΘH. *capite diademate* L. Δ.
AVT. K. Λ. Δ. ΑΥPHΛIANOC. CEB. *capite laureato.* L. B.
℞. AVT. EPMIAC. OΥABΑΛΛΑΘOC. ΑϴHNOΥ. *capite diademate.* L. E.
IMP. C. AURELIANVS AVG. *capite radiato.*
℞. VABALATHVS VCRIMPR. *alii male* VCRIMOR. *ſic olim interpretatus ſum.* Vice Cæſaris, *rector imperii Romani.*
IMP. C. VHABALATHVS AVG. *capite radiato.*
℞. VICTORIA AVG. *victoria geſtat palmam & coronam.*

The library of the Grand Jeſuits, near the gate St. Antoine, is a very fair gallery of great length and breadth, and well furniſhed with books, on the very top of the houſe. They find, that books keep much drier and ſweeter there, than in lower rooms, beſides the advantage of a clear ſky-light.

P. Daniel is library keeper, and was very civil to me; he ſhewed me a letter, which he had juſt then received from Monſieur Huetius, the learned biſhop of d'Auranches near Mont St. Michael's in Normandy; wherein he told him, that having lately received the catalogues of books printed in Holland and England during the war; he found, that learning was much alike at a kind of ſtand in Holland and France; but, that it had yet life and vigour in England, which he rejoiced at.

And, indeed, I had had the ſame thought from more of the French before. Even the Jeſuits themſelves will be little conſidered, if learning fall into neglect and diſgrace. Oratory ceaſed with the commonwealth of Rome; and ſo will all ſorts of learning without emulation and rewards.

He ſhewed me P. de ly Chaiſe's cabinet of medals.

Alſo a veſtal of copper found at Dee in the country of le Foreſt.

Alſo a very intire loaf or Roman ten pound weight of red copper, on which was inſcribed [illegible] X.

Alſo [illegible]e urn, or ſmall tomb, well carved and inſcribed

D. M.
SVLPICIO
NOTO. ADESTE
SVPERI.

I ſaw the choir of the abbey of St. Germains, and the altar near the lower end of it; in which poſition alſo I remember to have ſeen an altar in the choir of St. John's church

church at Lyons; both plain tables. Monſ. l'Abbe de Villiers, who has an apartment in the convent, a learned man, went with me, and to the library alſo; which is two large galleries well furniſhed; at the end of one of them is a large cloſet of manuſcripts; alſo another armoir in the great library, where the moſt ancient manuſcripts are kept, yet with more care. In this I ſaw the pſalter, as it is believed, of St. Germain, who lived in the ſixth century; it is certainly very ancient; being a large quarto of fine purple vellum, and on it are wrote the pſalms in large capital letters, with commas or points. The letters ſeem to have been of ſilver; and the great initial capitals of gold.

They ſhewed alſo a pſalter in the ſhort notes of Tyro, Tullius's Libertus; with a diſcourſe concerning the uſe of ſuch ſhort hand in the beginning of the manuſcript; it was wrote very fair on vellum, with red ink, as I remember.

The codicils or waxen table books of the ancients; which were thin cedar boards about fourteen inches long, and five broad, ſix or eight of them glued together by ſhreds of parchment: the rims were a little raiſed, with a flat and broad border, the better to preſerve the black wax, which was ſpread over them. I ſaw more of theſe afterwards in the king's library; and by the letter it is manifeſt, they were in uſe much later than I could have imagined. This was in Latin, and I could read here and there a word, for the ground was much torn up, as *Pro duobus Falconibus*, &c. The ſtyle or ſteel pen had cut through in many places; ſo that with a good eye-glaſs I could ſee the board bare. I take this paſte to be nothing elſe, but what the etchers in copper uſe at this day to cover their plates with, to defend from the aqua-fortis; which is a compoſition of bitumen and bee's wax.

Here alſo I ſaw a manuſcript of three or four leaves written upon true Egyptian paper, in which with an eye-glaſs it was eaſy to diſcern, how the flags were diſpoſed, lengthways and acroſs one over another. The letters which remained, which were but few, were large and fair ſquare capitals. This fragment I take to be the moſt ancient writing they have.

I viſited in this convent, at his chamber Pere Mabillon, who has ſo well deſerved of the commonwealth of learning by his writings, and particularly that excellent book *De Re Diplomaticâ*; he ſeemed to me to be a very good natured and free-hearted man; and was very well pleaſed to hear, that our catalogue of Engliſh manuſcripts was ſo forward in the preſs at Oxford. He thankfully owned the favour of the Cotton library; and was very ſorry to hear of Dr. Bernard's death, of whom he ſpoke very kindly; but he expreſſed a wonderful eſteem for Dr. Gale, the Dean of York.

In another converſation I had with P. Mabillon, (for he was my neighbour, and I was often with him) telling him the account we had brought us of Palmyra, and the tracts that were written of it, and that more was intended to be publiſhed about it: he was much concerned, that thoſe accounts, which were pure matters of learning in general, were written in Engliſh; and he told me, he was afraid it might be with us, as it was with them, ſince they cultivated their own language ſo much, they began to neglect the ancient tongues, the Greek and Latin.

He ſhewed me certain figures not ill taken with red chalk, of ſome very ancient monuments obſerved by ſome of the fathers of their order; one of which was preſent in the chamber, upon the mountain of Framond near Salme, which lies in the middle of that tract of the mountain, called la Vague, betwixt Alſace and Lorraine. There were great remains of an ancient city. Theſe figures, which the fathers ſhewed me, were about twelve in all; but five or ſix of them were of Mercury; a cock at his foot; a chlamys knotted upon the right ſhoulder, hanging at his back; his hair laid in curls about his face, and tied with a ribband, whoſe two ends might be ſeen on the top

p of his head, like horns; a caduceus in his hand, which was very differently repre-
nted in all the figures of him; ſometimes held up, other times the point reſting
his feet; ſometimes the ſnakes were twiſted about a ſtick; and again in others
ithout one, or the deſigner had taken no notice of it; ſometimes the tail of the ſer-
ent ſpread and flying about, and again in others cloſe twiſted with many braids; a
rdle came round the bottom of his belly, and which had in the middle of it two
ngs, one faſtened to the other, and hanging betwixt his legs. Theſe many ſtatues
Mercury in a French country are a confirmation of what Cæſar ſays of the religion
the Gauls, in his ſixth book, *Deum maxime Mercurium colunt: hujus ſunt plurima*
nulacra.

There were ſome few Roman letters on ſome of them, which were ſo imperfect,
at I could make nothing of them.

The library of St. Genevieve is a very large and fair gallery, upon the very top of
e houſe, well ſtored with books on both ſides up to the top, and kept in caſes wired
ith braſs; which is a good ſecurity, andhinders not the books from being ſeen.

Alſo it is adorned with fair buſto's of the ancient men of learning.

The muſeum is a little cloſet on the ſide of this gallery; of which there is a book
tely publiſhed: I ſaw in it very little of natural hiſtory, that was remarkable. They
ep half a dozen joints of a large cornu ammonis, which they ſhew as a rarity. But
is well ſtored with ancient idols, and ſacrificing veſſels, lacrymatoirs, pateras, ſtrigils;
ſo ancient weights and meaſures; coins, and particularly the As, and its firſt and lat-
r diviſions.

There we ſaw an ancient As, with Etruſcan letters of a kind of red copper; the let-
rs ſeem to be a-kin to the old Greek characters. Theſe are the capital letters about
e coin going round, and bringing every letter before you.

As quaſi Æs: this is very reaſonable; for before the Greeks had invented double
tters, the Romans were ſkilled in their writing. So Vitruvius * tells us Ærugo was
the Etruſcan tongue called Eruca. Whence undoubtedly by tranſlation the com-
on caterpillar had its name, from its blueneſs; which alſo is an evidence, that the
uſcan writing was in the old Greek character.

But nothing pleaſed me more than to have ſeen the remains of the cabinet of the
oble Piereſc. the greateſt and heartieſt Mæcenas, to his power, of learned men of any
f this age.

Amongſt the firſt and very old braſs Roman coins there was a ſextans, with a cadu-
eus of Mercury on one ſide, and a ſcallop ſhell on the other; probably, becauſe they
ight have at firſt had the uſe of ſhell money, as ſome parts of both the Indies and
frica have at this day, till Mercury, whoſe emblem that ſtaff is, taught them the uſe
f metallic money.

Alſo in this cabinet are wet meaſures, as the ancient congius, of which they have
n old one, and an exact copy of that of the capitol; alſo a ſextarius, and a quarta-
ius. Now the congius containing 120 ounces; the ſextarius 20 ounces; the he-
ina ten ounces; the quartarius five ounces. I doubt not, but the cyathus, by rea-
on of the aforeſaid diviſion, held two ounces and an half; which is the meaſure, ſo
equently to be met with in old phyſic authors, and of ſo great concern in doſes.

In that Etruſcan as before-mentioned, one cap coifs or covers the double head of
anus. I ſaw an ancient ſtatue of Mercury in the garden belonging to the King's li-
rary in Paris, where Mercury has upon his head a long cap doubled, or laid double

* De Architect. l. 7. c. 2. Ed. Barbari.

upon

upon his head, as though there were ſome affinity betwixt thoſe two inventors of trade, arts and learning.

Here alſo we ſaw the ſteel dyes of the Paduan brothers, by which they ſtamped and falſified the beſt ancient medals ſo well, that they are not to be diſtinguiſhed but by putting them into thoſe moulds; which makes them very valuable, there being 100 and more of them, and are priſed at 10,000 crown. They ſtamped upon old medals whereby the cheat was the greater; for by this means they were of the ancient metal, had the green coat, and the ſame ragged edges.

I ſaw a picture here of about ſix inches over, finely painted in Moſaic, the very little ſquares were ſcarcely viſible to the naked eye, but the whole appeared like the fineſt hatchings in ſtamps; yet by the application of a good eye-glaſs, I could readily diſtinguiſh the ſquares of all colours, as in other Moſaics. This ſort of painting had a very admirable effect, beſides the duration.

Here was alſo the leg of a mummy well preſerved, the toes only bare, black and ſhining as pitch: the bandage was very curious, and was diſpoſed in oblique circles, decuſſated; but the filleting very narrow. I told the father, that it was ſtill fleſh; and that mummy therefore in Venice treacle did break lent, if given at that time: he anſwered, he did not believe it: I told him how he ſhould be convinced, viz. if that leg was kept a good while in a damp cellar, it would yield and ſtink like very carrion, though it was at leaſt 3000 years old; which thing happened to one in London, ſo careleſsly laid by.

There was one thing very curious, and that was an ancient writing inſtrument of thick and ſtrong ſilver-wire, wound up like a hollow bottom or ſcrew; with both the ends pointing one way, and at a diſtance; ſo that a man might eaſily put his fore-finger betwixt the two points, and the ſcrew fills the ball of his hand. One of the points was the point of a bodkin, which was to write on waxed tables: the other point was made very artificially, like the head and upper beak of a cock, and the point divided in two, juſt like our ſteel-pens; from whence undoubtedly the moderns had their patterns; which are now made alſo of fine ſilver and gold, or princes metal; all which yet want a ſpring, and are therefore not ſo uſeful as of ſteel, or a quill: but a quill ſoon ſpoils. Steel is undoubtedly the beſt, and if you uſe China ink, the moſt laſting of all inks, it never ruſts the pen, but rather preſerves it with a kind of varniſh, which dries upon it, though you take no care in wiping of it.

I ſaw the library of the late Monſieur Colbert, that great patron of learning. The gallery, wherein the printed books are kept, is a ground-room, with windows on one ſide only, along a fine garden. It is the neateſt library in Paris, very large and exceedingly well furniſhed. At the upper end is a fair room, wherein the papers of ſtate are kept; particularly thoſe of the adminiſtration of Cardinal Mazarine, and his own accounts, when he was in employment. Theſe make up many hundred folios, finely bound in red maroquin and gilt.

The manuſcript library is above-ſtairs, in three rooms, and is the choiceſt of that kind in Paris: It contains 6610 volumes. The catalogue of them Monſieur Baluze ſhewed me; which he ſaid was deſigned ſhortly for the preſs.

He ſhewed me many rare books, Carolus Calvus's bible, a vaſt folio in vellum, and his prayer book or hours, all writ in gold letters.

Alſo the Miſſa Beati Rhenani, whereof all the copies were burnt but four. The original deed of the agreement of the Greek and Roman church at Florence, the Regalia agreed upon at Lyons, and many others, which I have forgot.

I ſaw neither Greek nor Latin manuſcript, but what had the marks of the Goths upon them: that is, the letters maimed, and conſequently not very ancient.

He

He ſhewed us Servieto's book, for which he was burnt at Geneva; which coſt Monſieur Colbert at an auction in England twenty-five crowns. The title is, *De Trinitatis Erroribus Libri 7. per Michaelem Serveto alias Reves ab Aragonia Hiſpanum* 1531. I had forgot the particular place where the circulation of the blood through the lungs is mentioned: but he told me very civilly, I ſhould have it tranſcribed at any time.

We told him, we came to ſee him as well as the library: he replied, it was his hap to have more reputation than merit. He was a little old man, but very cheerful, and of a quick wit.

He complained much of the refuſal of the Emperor's people concerning the manuſcripts of Vienna, in order to the publication of the capitulaires: for he ſaid, letters were never at war: that for his part he had moſt willingly given leave for at leaſt twenty-four manuſcripts to be collated for Dr. Mill's edition of the New Teſtament.

The library of the Sorbonne is a very long and large gallery, reaſonably well ſtored with books; no catalogue printed.

Amongſt the manuſcripts, they ſhew, Titus Livy in French, upon vellum, in a very large folio, bound in two books: the firſt is almoſt throughout illuminated with very fine miniatures. The book is dedicated to King John, by Peter Berchorius: and in the title page is a very curious deſign of that king receiving the preſent from the author of the tranſlation.

Amongſt the illuminations and ornamental pictures in the margin, I could not but take notice of a braſs cannon fired, well painted, with two large arms or gudgeons one on each ſide near the touch-hole; which evinces cannon to have been in uſe at that time.

This manuſcript confirms the loſs of Titus Livy, and that it was deficient in that age, as to what is now wanting, there being nothing more in this than what is in the printed copy. This was the gift of Cardinal Richlieu to the library; who in a manner re-built the whole college, and beautified it as it is. His tomb is in the middle of the quire, before the great altar, in white marble; and is for plainneſs and exquiſite performance, the beſt thing of that kind I ever ſaw.

I ſaw the library of St. Victor: this moſt ancient convent is the beſt ſeated of any in Paris; has very large gardens, with ſhady walks, well kept. The library is a fair and large gallery: it is open three days a week, and has a range of double deſks quite through the middle of it, with ſeats and conveniencies of writing for forty or fifty people.

The catalogue was not finiſhed, nor intended to be printed; which yet I think is always neceſſary in all corporations, for check of loſs of books, for the uſe of ſtrangers, for benefactions.

In a part of it, at the upper end, are kept the manuſcripts; they are ſaid to be 3000; which, though not very ancient, have yet been found very uſeful for the moſt correct editions of many authors. This is one of the pleaſanteſt rooms that can be ſeen, for the beauty of its proſpect, and the quiet and freedom from noiſe in the middle of ſo great a city.

In this convent is very prettily lodged, in an outward court, Monſieur Morin, another phyſician of that name. In his apartment, he hath a large and excellent collection of phyſic books and natural hiſtory. He ſaluted me with the greateſt kindneſs imaginable; and at firſt word, aſked me, if there was any more of Sir Francis Willoughby's works printed beſides his hiſtory of fiſhes, and that other of birds; both which he had. He had in another room a well ſtored muſæum of natural hiſtory, of all ſorts, and of comparative anatomies: a cabinet of ſhells, another of ſeeds, among which were ſome from China: variety of ſkeletons, &c.

I ſaw the Celeſtins. The library is an upper gallery, very pleaſant, and plentifully furniſhed with books. This is a very fine convent; with the nobleſt Dortoire, having open galleries round: alſo, very large gardens, with alleys and ſhady groves; and divers kitchen-gardens, well cultivated. Alſo a vineyard of white-wine grapes, well kept; which is the only thing of that kind within the walls of Paris.

Here I alſo ſaw the cloſet or cell of P. Hochereau; who had a very choice collection of original paintings, of very many of the beſt maſters: amongſt the reſt, I took notice of the originals of Rambrant, excellent pieces. St. Peter and the cock: the nativity of our Saviour: and, the maſſacre of the innocents. His colouring is not to be imitated: his invention great and natural, and the deſign moſt correct.

I was to viſit Pere Mallebranche of the fathers of the oratory: they live very neatly together in a kind of community, but under no rule: he was very handſomely lodged, in a room well furniſhed: he is a very tall, lean man, of a ready wit and cheerful converſation.

After an hour's diſcourſe, he carried me into the public library of the houſe: a fair gallery well lighted, and well furniſhed with books; with an apartment at the upper end for manuſcripts, where were many Greek and Hebrew. Amongſt the reſt, the library-keeper ſhewed us the Samaritan Pentateuch, of which Morin made uſe. It ſeemed to me to be much later than that of Sir John Cotton's library with us, becauſe it was of a much ſmaller letter, and more broken in the writing, which was all I am capable to judge by.

They were buſy in reforming the diſpoſition of the library; and making a good catalogue, according to the method of the late archbiſhop of Rheims; and which I liked well of, they had drawn out ſome hundreds of books, and expoſed them in the middle of the library, upon a long table, for ſale, as being duplicates; and from the ſale of them to furniſh themſelves with what they wanted.

The books which were written by proteſtants, I obſerved, they were locked up in wire caſes, not to be come at without particular leave.

The freedom and nature of this order puts me in mind of what I heard of a certain rich and learned man, Monſieur Pinet, of the law; who put himſelf at length into religion, as they ſay, amongſt the fathers; but firſt perſuaded his cook to do ſo too; for he was reſolved not to quit his good ſoups, and ſuch diſhes as he liked, whatever became of his penance and retirement. This compliment the elegant and learned Monſieur Peletier, in Monſieur Colbert's place, Comptroller General of the Finances made his gueſts at his country-houſe near Choiſy, having voluntarily quitted all his employments at court: he ſaid, he reſerved his cook, though he retrenched the reſt of his retinue; they might therefore expect a ſlender philoſopher's dinner, though well dreſt.

It is wonderful to conſider how moſt of the reſt of the orders abuſe themſelves for God's ſake, as they call it. Hunger and ill diet not only deſtroys a man's health, but maugre all his devotion, put him out of humour, and makes him repine and envy the reſt of mankind: and well if it do not make him alſo curſe in his heart his maker; Job is not every man's roll to act. The original and riſe of natural philoſophy and phyſic was to invent a more wholeſome and better food, than the beaſts have, and to eat bread and fleſh inſtead of herbs and corn; to drink wine inſtead of water; thoſe and a thouſand other things were the bleſſings of phyſick, and ſtill the good management of theſe things, both in health and ſickneſs, are under the directions of the phyſicians. Now for a ſort of melancholy and wilful men, to renounce theſe comforts,

and

and deſtroy ther healths, and all this upon a pretended principle of religion and devotion, ſeems to me, I confeſs, great ingratitude to God the author of it.

Indeed I heartily pitied F. P. an induſtrious honeſt man, after his return from the Indies, who was nothing but ſkin and bone; and yet by the rules of his order he could not eat any thing that was wholeſome and proper for his cure; nothing but a little ſlimy naſty fiſh and herbs: and though he took, as he told me, hypocochoana five times, it had no effect upon him. It is true, I never heard him complain; but what will not blind prejudice do againſt all the reaſon of mankind!

I know ſome of theſe men have been uſeful to mankind by their ſtudies; but the very ſame men would have been much more, had they ſtaid with their neighbours, and taught the world by their converſation and example; wiſdom, and juſtice, and innocence, and temperance, which they highly pretend to, are not things to be hid in corners, but to be brought forth to inſtruct and adorn the age we live in: to abandon the world, and all the conveniences of life and health, is (let them ſay what they pleaſe) the height of chagrin, and not religion.

There were ſome other public libraries I ſaw, as that of the Grands Auguſtins, College Mazarin, College Navarre, and a great many more I did not ſee for want of an opportunity; but there is nothing particular I remember about them.

There is ſuch a paſſion of ſetting up for libraries, that books are come to moſt unreaſonable rates.

I paid to Aniſſon thirty-ſix livres for Nizoleus; twenty livres for the two ſmall quartos of the memoirs of the Academie de Sciences, that is, as I may ſay, for two years philoſophic tranſaction; for they began thoſe monthly memoirs in imitation of ours, out of the regiſters of the academy, but did not think fit to continue them above two years.

As to ſtamps, I had a mind to have bought a complete ſet of Melans, that incomparable maſter; but I was aſked 200 livres, and twelve excepted, which might amount to as much more; for ſome of his gravings in octavo done at Rome, they aſked me a piſtole a-piece; and for the head of Juſtinianus a louis; which yet is his maſter-piece.

I was at an auction of books in the Ruë St. Jaques, where were about forty or fifty people, moſt abbots and monks. The books were ſold with a great deal of triſling and delay as with us, and very dear; for *Hiſpania illuſtrata Aud. Sciotti*, of the Frankfort edition, from twenty livres, at which it was ſet, they bid up by little and little to thirty ſix livres; at which it was ſold. The next was a catalogue of French books in thin fol. in an old parchment cover by De la Croix de Maine, eight livres. And ſo I left them to ſhift it amongſt themſelves.

After having ſaid ſo much of the public libraries, I cannot but congratulate their happineſs, to have them ſo well ſecured from fire; it being one of the perfections of this city to be ſo built and furniſhed, as not to have ſuffered by it theſe many ages; and, indeed, I cannot ſee how malice itſelf could deſtroy them, for the houſes here are all built of ſtone, walls, floors, ſtaircaſes and all, ſome few rooms excepted; no wainſcot; woolen or ſilk hangings, which cannot be fired without giving notice by the intolerable ſtench, and the ſupply of much fuel. It is well for us in London, that there are very few public libraries, and thoſe ſmall and inconſiderable, and that the great number of books are diſtributed into a thouſand hands, (no country in Europe can compare to us for private libraries) for if they were together in ſuch vaſt quantities as in Paris, learning would run the hazard of daily ſuffering. Here with us, methinks, every man that goes to bed, when aſleep, lies like a dead Roman upon a funeral pile, dreading

ſome unexpected apotheoſis; for all is combuſtible about him, and the paint of the deal boards may ſerve for incenſe, the quicker to burn them to aſhes.

In the next place I will account for what I ſaw, that ſeemed to me ſingular and new in the improvement of arts, or wanting in our country.

I ſaw the pottery of St. Cloud, with which I was marvellouſly well pleaſed, for I confeſs I could not diſtinguiſh betwixt the pots made there, and the fineſt china ware I ever ſaw. It will, I know, be eaſily granted me, that the paintings may be better deſigned and finiſhed, (as indeed it was) becauſe our men are far better maſters in that art than the Chineſe; but the glazing came not in the leaſt behind theirs, not for whiteneſs, nor the ſmoothneſs of running without bubbles; again, the inward ſubſtance and matter of the pots was to me the very ſame, hard and firm as marble, and the ſelf ſame grain, on this ſide vitrification. Farther, the tranſparency of the pots the very ſame.

I ſaw them alſo in the mould, undried, and before the painting and glazing was applied, they were as white as chalk, and melted upon the tongue like raw tobacco pipe clay, and felt betwixt the teeth ſoft like that, and very little gritty; ſo that I doubt not, but they are made of that very clay.

As to the temper of the clay, the man freely owned to me, it was three or four times well beaten and wet, before it was put to work on the wheel; but I believe it muſt firſt be melted in fair water, and carefully drawn off, that the heavieſt part may firſt ſink; which alſo may be proper for coarſer works.

That it required two, and ſometimes three or four fires to bake it, to that height we ſaw it in the moſt finiſhed pots; nay ſome of them had had 11 fires.

I did not expect to have found it in this perfection, but imagined this might have arrived at the Gomron ware; which is indeed little elſe but a total vitrification; but I found it far otherwiſe, and very ſurprizing, and which I account part of the felicity of the age to equal, if not ſurpaſs, the Chineſe in their fineſt art.

As for the red ware of china, that has been, and is done in England, to a far greater perfection than in China, we having as good materials, viz. the ſoft hæmatites, and far better artiſts in pottery. But in this particular we are beholden to two Dutchmen, brothers, who wrought in Staffordſhire, (as I have been told) and were not long ſince at Hammerſmith.

They ſold theſe pots at St. Cloud at exceſſive rates; and for their ordinary chocolate cups aſked crowns a-piece. They had arrived at the burning on Gold in neat chequer works. He had ſold ſome furnitures of tea tables at 400 livres a ſet.

There was no moulding or model of China ware, which they had not imitated; and had added many fancies of their own, which had their good effects, and appeared very beautiful.

Monſieur Morin in converſation told me, that they kept their ſand as a ſecret to themſelves; but this could not be for other purpoſes than colouring; alſo he ſaid they uſed ſalt of kelp in the compoſition, and made a thing not unlike frit for glaſs, to be wrought up with white clay; neither could this be, for I did not taſte it in the raw pots.

The ingenuous maſter told me, he had been twenty-five years about the experiment, but had not attained it fully till within this three years. I and other gentlemen brought over of theſe pots with us.

The glaſs-houſe out of the gate of St. Antoine well deſerves ſeeing; but I did lament the foundery was no longer there, but removed to Cherborne in Normandy for cheapneſs of fuel. It is certainly a moſt conſiderable addition to the glaſs-making. For I

ſaw

ſaw here one looking-glaſs foiled and finiſhed, eighty-eight inches long, and forty-eight broad, and yet but one quarter of an inch thick. This I think could never be effected by the blaſt of any man; but I ſuppoſe to be run or caſt upon ſand, as lead is; which yet, I confeſs, the toughneſs of glaſs metal makes very much againſt.

There they are poliſhed; which employs daily ſix hundred men, and they hope in a little time to employ one thouſand in ſeveral galleries. In the lower they grind the coarſe glaſs with a ſand-ſtone, the very ſame they pave the ſtreets in Paris; of which broken they have great heaps in the courts of the work-houſes: this ſtone is beat to powder, and ſifted through a fine tamis. In the upper gallery, where they poliſh and give the laſt hand, they work in three rows, and two men at a plate, with ruddle or powdered hæmatites in water.

The glaſſes are ſet faſt in white putty, upon flat tables of ſtone, ſawed thin for that purpoſe. The grinding of the edges and borders is very troubleſome, and odious for the horrid grating noiſe it makes, and which cannot be endured to one that is not uſed to it; and yet by long cuſtom theſe fellows are ſo eaſy with it, that they diſcourſe together as though nothing were. This is done below, and out of the way of the reſt.

It is very diverting to ſee the joint labour of ſo many men upon one ſubject. This has made glaſs for coaches very cheap and common; ſo that even many of the fiacres or hackneys, and all the remiſes have one large glaſs before.

Amongſt the bioux made at Paris, a great quantity of artificial pearl is to be had, of divers ſorts; but the beſt are thoſe which are made of the ſcales of bleaks. Theſe bleaks they fiſh in the river Seine at Paris, and ſell them to the pearl-makers for that purpoſe.

Monſieur Favi, at the Pearl d'Angleterre, told me, that he paid for the fiſh only of the little river Yier of Ville Neuve St. George, four leagues off of Paris, by the year 110 piſtoles. This fiſh in French is called de la Bellette; *ſometimes in winter* he has had thirty hampers of the fiſh brought him, *for the ſcales only*, which he uſes in pearl-making. He ſells ſome ſtrings for a piſtole; and they have formerly been ſold much dearer. This ſort is very neat and laſting.

Enquiring of a goldſmith, a great dealer in pearl, about thoſe which were made of the ſcales of fiſhes, he told me that it was ſo; that the ſcales were beat to powder, and that made into a liquid paſte with iſing-glaſs, and caſt into the hollow glaſs beads, and ſo gave the colour by way of foil from the inſide.

I aſked him if he had any freſh-water and muſcle pearl; and he forthwith ſhewed me one of twenty-three grains, of a bluſh colour or faint carnation, perfectly globular; he told me, he valued it at 400l. for that it would mix or match better with the oriental ſea pearl, than the bluiſh ones. Further, he aſſured me, he had ſeen pearl of ſixty odd grains of freſh-water muſcles; and ſome pear-faſhioned. That in Lorrain, and at Sedan, they fiſhed many pearls in the rivers thereabout.

The formerly ſo famous a work-houſe, the Goblins, is miſerably fallen to decay; perhaps becauſe the king, having furniſhed all his palaces, has little more to do for them.

Here I ſaw the making marble tables, inlaid with all ſorts of coloured ſtones.

Alſo the Atteliers or work-houſes of two of the famous ſculptors Tuby; in which was a Lacoon copied in white marble admirably; alſo that other of Quoiſivox, in which was, amongſt other rare pieces, Caſtor and Pollux, in white marble, exceedingly beautiful and large; a copy alſo after the antique.

At Hubin's, the eye-maker, I ſaw drawers full of all ſorts of eyes, admirable for the contrivance, to match with great exactneſs any Iris whatſoever; this being a caſe where miſ-matching is intolerable.

He himſelf alſo formerly wrought in falſe pearl, and affirmed, that the glaſs pearls were painted within with a paſte made of the ſcales of the bleak only; which he ſaid was a good trade here to the fiſhermen, who ſold the ſcales for ſo much the ounce. Theſe necklaces were formerly ſold at great prices, two or three piſtoles a-piece.

I ſaw the platrerie, or plaſter quarries near Montmartre, and the manner of burning of it. It is burnt with open fire ſet up againſt it; the hardeſt ſtone is burnt enough in two or three hours' time.

The top band or bed is very hard like a free-ſtone: they diſtinguiſh the beds by ſeveral names, *i. e.* 1. Mutton, 2. Lane, 3. Buzier, 4. Clikar, 5. Groſban, 6. Pillier-noir, &c.

That which they call Lane is like Talk, or Selenites tranſparent, and ſplits in thin flakes; but there is but little of it, and the beds are ſmall; this ſeems to be but a fluor to the greater beds of grey-ſtone. This rock is covered with a kind of grey ſand to a great depth; which is not of the nature of plaiſter.

Though this plaiſter burnt is never uſed (that I could learn) to fertilize either corn-ground or paſture, as our lime-ſtone is; yet I ſee no reaſon why it may not, it being full of nitre, if it has lain long in damp caves.

This is not peculiar to Paris only: for I have ſeen quarries of it near Clifford-Moore in Yorkſhire; where it is called hall-plaiſter.

I cannot omit the mill-ſtones, which they grind their wheat with at Paris, as upon the river of the Gobelins, out of the gate St. Bernard, where it falls into the Seine, and all throughout Picardy down to Calais, where I have ſeen great numbers of them.

Theſe mill-ſtones are very uſeful, and ſo ſweet, that not the leaſt grit is ever found in their bread: they are moſtly made up of pieces, two, three, or more ſet together by a cement, and hooped round with iron to keep the pieces faſt together. They are made of a kind of honey-comb ſtone, wrought by the petrifaction of water, or ſtalactites. The very ſelf-ſame ſtone I have ſeen rocks of on the river banks at Knareſborough, at the dropping-well in Yorkſhire; therefore I adviſe my countrymen to put theſe excellent ſtones in practice; for certainly no place ſtands in more need of it; for the bread in the north of England is intolerably gritty, by reaſon of thoſe ſand or moor ſtones with which they grind their corn.

Theſe ſtones are ſold at 500 livres a pair; whence they come I forgot to be informed.

In the next place, we will ſee how the Pariſians eat, drink, and divert themſelves.

Of the Food of the Pariſians.

The diet of the Pariſians conſiſts chiefly of bread and herbs; it is here as with us, finer and coarſer. But the common bread, or pain de gonneſſe, which is brought twice a week into Paris from a village ſo called, is purely white, and firm, and light, and made altogether with leaven; moſtly in three pound loaves, and 3d. a pound. That which is baked in Paris is coarſer and much worſe.

As for the fine manchet, or French bread, as we call it, I cannot much commend it; it is of late, ſince the quantity of beer that is brewed in Paris, often ſo bitter, that it is not to be eaten, and we far exceed them now in this particular in London.

The

The grey ſalt of France (which there at table is altogether in every thing made uſe of) is incomparably better and more wholeſome, than our white ſalt. This I the rather mention, becauſe it ſeems not yet to enter fully into the conſideration and knowledge of our people; who are nice in this particular to a fault. But I muſt take leave to tell them, that our ſalt ſpoils every thing that is intended to be preſerved by it, be it fiſh or fleſh. For whether boiled from the inland ſalt-pits, or the ſea water, it is little leſs than quicklime, and burns and reeſes all it touches; ſo that it is pity to ſee ſo much good fiſh, as is caught upon the northern line of coaſt, particularly the cod and ling, and herring, now of little value, which were formerly the moſt eſteemed commodities of England. It is certain, there is no making good ſalt by fierce and vehement boiling, as is uſual; but it muſt be kerned either by the heat of the ſun, as in France; or by a full and over-weighty brine, as at Milthrope in the Waſhes of Lancaſhire; for in no other place in England I ever ſaw it right made; but yet that is not there underſtood to purpoſe; for they alſo boil the brine, which poſſibly by ſome ſlight artifice might be brought to give its ſalt without ſtreſs of fire.

In lent the common people feed much on white kidney beans, and white or pale lentils, of which there are great proviſions made in all the markets, and to be had ready boiled. I was well pleaſed with this lentil; which is a ſort of pulſe we have none of in England. There are two ſorts of white lentils ſold here, one ſmall one from Burgundy, by the cut of Briare; and another bigger, as broad again, from Chartres; a third alſo much larger, is ſometimes to be had from Languedoc. Thoſe excepted, our ſeed ſhops far exceed theirs, and conſequently our gardens, in the pulſe-kind for variety; both pea and bean.

The roots differ much from ours. There are here no round turnips, but all long ones and ſmall; but excellently well taſted, and are of a much greater uſe, being proper for ſoups alſo; for which purpoſe ours are too ſtrong: we have indeed of late got them into England; but our gardeners underſtand not the managing of them. They ſow them here late after midſummer; and at martinmas or ſooner, before the froſt begin, they dig them up, cut off the tops, and put them into ſand in their cellars, where they will keep good till after Eaſter, nay till Whitſuntide: whereas, if the froſt take them, they are quite ſpoiled; and that piece of ill huſbandry makes them to be deſpiſed here; having loſt their taſte, and they ſoon grow ſticky in the ground. The ſandy plains of Vaugerard near Paris are famous for this ſort of moſt excellent root. After the ſame manner they keep their carrots.

After we had been two or three days' journey in France, we found no other turnips, but the navet; and ſtill the nearer Paris the better. Theſe as I ſaid, are ſmall long turnips, not bigger than a knife-haft, and moſt excellent in ſoups, and with boiled and ſtewed mutton. I think it very ſtrange that the ſeed ſhould ſo much improve in England, as to produce roots of the ſame kind ſix or ten times as big as there; for I make no queſtion but the long turnips, of late only in our markets, are the ſame.

The potatoe is ſcarce to be found in their markets, which are ſo great a relief to the people of England, and very nouriſhing and wholeſome roots; but there are ſtores of Jeruſalem artichokes.

They delight not ſo much in cabbage as I expected, at leaſt at the ſeaſon, while we were there, from December to Midſummer. I never ſaw in all the markets once ſprouts, that is, the tender ſhoots of cabbages; nor in their public gardens any reſerves of old ſtalks. The red cabbage is eſteemed here, and the ſavoy.

But to make amends for this, they abound in vaſt quantities of large red onions and garlick. And the long and ſweet white onion of Languedoc are to be had alſo here. Alſo leeks, rockhamboy, and ſhallots are here in great uſe. It

It has been obſerved, that the northern people of Europe much delight in cabbage, as the Ruſſes, Poles, Germans, &c. It is certain, the cabbage thrives beſt in cold countries, and is naturally a northern plant, and the keel is to be found wild upon the maritime rocks, as I have ſeen it at Whitby, and the cold ripens it, and makes it more tender and palatable.

The ſouthern people are pleaſed with the onion kind, for the ſame reaſon, for that the great heats meliorate them, but give a rankneſs to the cabbage. The leeks are here much ſmaller, than with us; but to recompenſe this, they are blanched here with more care and art, and are three times as long in the white part, which is by ſinking them early ſo deep in mellow earth. There is no plant of the onion kind ſo hardy as this, and ſo proper for the cold mountains, witneſs the uſe the Welſh have made of them from all ages; and indeed it is excellent againſt ſpitting of blood, and all diſeaſes of the throat and lungs.

Though the lettuce be the great and univerſal ſallad, yet I did not find they came near our people, for the largeneſs and hardneſs of them; indeed, about a week before we left Paris, the long Roman lettuce filled their markets, which was incomparable, and I think beyond our Sileſian.

April and May the markets were ſerved with vaſt quantities of white beets, an herb rarely uſed with us, and never that I know of, in that manner for ſoups. The leaves grow long and large, and are tied up, as we do our Sileſian or Roman lettuce to blanch, and then cut by the root. The ſtalks are very broad and tender, and they only are uſed, ſtripped of the green leaves. They cook thoſe ſtalks in different manners.

The aſparagus here are in great plenty, but for the firſt month they were very bitter and unpleaſant; from whence that proceeded I cannot gueſs; afterwards I did not much perceive it.

They are ſo great lovers of ſorrel, that I have ſeen whole acres of it planted in the fields; and they are to be commended for it; for nothing is more wholeſome, and it is good to ſupply the place of lemons, againſt the ſcurvy, or any ill habit of the body.

But after all, the French delight in nothing ſo much as muſhrooms, of which they have daily, and all the winter long, ſtore of freſh and new gathered in the markets. This ſurpriſed me; nor could I gueſs, where they had them, till I found they raiſed them on hot beds in their gardens.

Of forced muſhrooms they have many crops in a year; but for the months of Auguſt, September, October, when they naturally grow in the fields, they prepare no artificial beds.

They make in the fields and gardens out of the bar of Vaugerard (which I ſaw) long narrow trenches, and fill thoſe trenches with horſe dung two or three feet thick, on which they throw up the common earth of the place, and cover the dung with it, like the ridge of a houſe, high pitched; and over all they put long ſtraw or long horſe litter. Out of this earth ſprings the champignons, after rain; and if rain comes not, they water the beds every day, even in winter.

They are ſix days after their ſpringing or firſt appearance, before they pull them up for the market.

On ſome beds they have plenty, on others but few, which demonſtrate they come of ſeed in the ground; for all the beds are alike.

A gardener told me, he had the other year near an acre of ground ordered in this manner, but he loſt a hundred crowns by it; but moſtly they turn to as good profit as any thing they can plant.

They deſtroy their old beds in ſummer, and dung their grounds with them.

They prepare their new beds the latter end of Auguſt, and have plentiful crops of muſhrooms towards chriſtmas, and all the ſpring, till after March.

I ſaw in the markets the beginning of April, freſh gathered moriglios, the firſt of that kind of muſhroom, that I remember ever to have ſeen: though formerly I had been very curious and inquiſitive about this kind of plant, and had diſtinguiſhed and deſcribed thirty ſpecies of them growing in England; yet I do not remember ever to have found this ſpecies with us; it is blackiſh, and becomes much blacker when boiled, whence probably it had its name; but there are ſome few of them that are yellow. They are always of a round pyramidal figure, upon a ſhort thick foot-ſtalk. The foot-ſtalk is ſmooth, but the outſide of the muſhroom is all deeply plated and wrinkled like the inſide of a beaſts maw. The moriglio ſplit in two from top to bottom is all hollow and ſmooth, foot, ſtalk, and all. In this hollowneſs is ſometimes contained dangerous inſects. The taſte raw, is not ungrateful, and very tender. This muſhroom ſeems to me to be produced of the tree kind.

This ſort of muſhroom is much eſteemed in France, and is moſtly gathered in woods at the foot of the oaks. There were ſome of them as big as turkey eggs. They are found in great quantities in the woods in Champagne, about Reims, and Noſtre Dame de Lieſſe.

They ſtring them, and dry them; and they ſeem to me to have a far better reliſh than the champignons.

The French ſay, there are no bad moriglios; but there are bad muſhrooms. At firſt I was very ſhy of eating them; but by degrees, and that there was ſcarce any ragouts without them, I became pleaſed with them, and found them very innocent. I am perſuaded the harm that comes from eating them, is from the noxious inſects and vermin that feed upon them, and creep into them. I have often found them full of ſuch animals. Poſſibly the garden or forced muſhrooms, being that is done in winter, and in the ſpring, may be much freer of this miſchief, at what time inſects are dead, or not much ſtirring, than the wild muſhrooms of Auguſt.

The city is well ſerved with carp, of which there is an incredible quantity ſpent in the lent. They are not large, and I think are the better for it, but they are very clean of mud, and well taſted.

They have a particular way of bringing freſh oyſters to town, which I never ſaw with us; to put them up in ſtraw baſkets of a peck, ſuppoſe, cut from the ſhell, and without the liquor. They are thus very good for ſtewing, and all other manner of dreſſing.

There is ſuch plenty of macreuſe, a ſort of ſea ducks, in the markets all lent, that I admire, where they got ſo many; but theſe are reckoned and eſteemed as fiſh, and therefore they take them with great induſtry. They have a rank fiſhy taſte, yet for want of other fleſh were very welcome. I remember we had at our treat at the king's charge at Verſailles, a macreuſe pie near two feet diameter, for it was in lent; which being high ſeaſoned, did go down very well with rare burgundy. There is a better argument in Leewenhoeke for birds participating ſomething of the nature of fiſh, though their blood is hot, than any the council of Trent could think of, and that is, that the globuli of the blood of birds are oval, as thoſe of fiſhes are; but this will take in all the bird kind: which alſo in time thoſe gentlemen may think fit to grant.

As for their fleſh, mutton, and beef, if they are good in their kind, they come little ſhort of ours, I cannot ſay they exceed them. But their veal is not to be compared with ours, being red and coarſe; and I believe no country in Europe underſtands the management of that ſort of food like the Engliſh. This was once proper to Eſſex;

but now it is well known, that nothing contributes more to the whiteneſs and tenderneſs of the fleſh of calves, than often bleeding them, and giving them much food of milk and meal, beſides ſucking the dam. By much bleeding the red cake of the blood is exhauſted, and becomes all white ſerum or chyle. The ſame effect cramming hath upon poultry, ſo as the blood is well near all chyle; and the livers of geeſe, ſo fed by force, will become for the ſame reaſon, vaſtly great and white and delicious.

I cannot but take notice here of a great prejudice the French lie under, in relation to our fleſh. It is generally ſaid amongſt them, that our meat in England will not make ſo ſtrong broth as the French by a third part. If they ſay not ſo ſalt and ſavoury, and ſtrong taſted, I agree with them; and yet the French meat is never the better. For firſt their meat is moſtly leaner and more dry, and (which is all in all in this matter of ſoups) is long kept before it be ſpent, which gives it a higher and ſalter taſte; for as meat rots, it becomes more urinous and ſalt. Now our people, by cuſtom, covet the freſheſt meat, and cannot endure the leaſt tendency to putrefaction; and we had good reaſon to do ſo, becauſe our air is twice as moiſt as theirs, which does often cauſe in the keeping of meat a muſtineſs, which is intolerable to all mankind. Whereas the air of France being ſo much drier, keeping of meat, not only makes it tender, but improves the taſte. So that could we ſecure our meat, in keeping it from that unſavory quality, it would far outdo the French meat, becauſe much more juicy.

I do not remember I eat of above two ſorts of fleſh, but what we have as good or better in England, and that was of the wild pigs, and the red legged partridge. Of theſe laſt I eat at St. Cloud, taken thereabouts; as to bigneſs, they are much degenerated from thoſe in Languedoc, and leſs; but far excel the grey partridge in taſte.

As for their fruits, our journey was in the worſt time of the year, from December to Midſummer, ſo that we had little ſave winter fruits; ſome few bon chritens we taſted, not much better than ours, but ſomething freer of ſtones. The Virguleus pears were admirable, but to our ſorrow they did not laſt long after our arrival.

The Kentiſh pippin, as we call it, was here excellent; but two other ſorts of apples ſtock the markets. The winter calvil or queening, which though a tender and ſoft apple, yet continued good till after Eaſter. Alſo the Pome d'Apis, which is ſerved here for ſhew, more than uſe; being a ſmall flat apple, very beautiful, very red on one ſide, and pale or white on the other, and may ſerve the French ladies at their toilets for a pattern to paint by. However this tender apple was not contemptible after Whitſuntide; and which is its property, it never ſmells ill, though the ladies keep it (as ſometimes they do) about them.

I never met with any thing peculiar in their ſweetmeats but a marmalade of orange flowers; which indeed was admirable. It was made with thoſe flowers, the juice of lemons, and fine ſugar.

The Wines follow, and Water to drink.

The wines about Paris are very ſmall, yet good in their kind; thoſe de Surene are excellent ſome years; but in all the taverns they have a way to make them into the faſhion of Champagne and Burgundy.

The tax upon wines is now ſo great, that whereas before the war they drank them at retail at five-pence the quart, they now ſell them at 1s. 3d. the quart, and dearer, which has enhanced the rates of all commodities, and workmen's wages; and alſo has cauſed many thouſand private families to lay in wines in their cellars at the cheapeſt hand, which uſed to have none before.

The

The wines of Burgundy and Champagne are moſt valued, and indeed not without reaſon; for they are light and eaſy upon the ſtomach, and give little diſturbance to the brain, if drawn from the hogſhead, or looſe bottled after their faſhion.

The moſt eſteemed are Vin de Bonne of Burgundy, a red wine; which is dolce piquante in ſome meaſure, to me it ſeemed the very beſt of wine I met with.

Volne, a pale Champagne, but exceedingly briſk upon the palate. This is ſaid to grow upon the very borders of Burgundy, and to participate of the excellency of both counties.

There is another ſort of wine, called Vin de Rheims, this is alſo a pale or grey wine; it is harſh, as all Champagne wines are.

The white wines of value are thoſe of Maſcon in Burgundy.

Mulſo in Champagne, a ſmall and not unpleaſant white wine.

Chabri is a quick and ſharp white wine, well eſteemed.

In March I taſted the white wines called Condrieu, and d'Arbois, but found them both in the muſt, thick and white as our wines uſe to be, when they firſt come from the Canaries; very ſweet, and yet not without a grateful flavour; they clear towards ſummer, and abate much of the flavour and ſweet taſte. Thoſe wines thus in the muſt are called in the prints Vin des Liquers.

There is a preparation or rather ſtifling of the white wine in the muſt, uſed in Burgundy and elſewhere, which they call Vin Bouru; it gives a ſweet taſte, and it is foul to the eye; thoſe alſo are called Vin des Liqueurs. This is only drunk a glaſs in a morning, as an equivalent to brandy.

Vin de Turene en Anjou of two years old, was one of the beſt white wines I drank in Paris.

Gannetin from Dauphine: this is a very pale and thin white wine, very like the Verde of Florence, ſweet, and of a very pleaſant flavour, eſpecially while it is Des Liqueurs.

The red wines of Burgundy, Des quatres feuilles, as they ſay, or of four years old, are rare; but they are eſteemed much more wholeſome, and are permitted to the ſick, in ſome caſes to drink of; they are fine, and have a rough but ſound taſte; not pricked, as I expected. The term Des quatre feuilles is uſed alſo to Folne, or any other ſort of wine, which is kept any time.

There are alſo in eſteem ſtronger wines at Paris, as Camp de Perdris.

Coſte Bruſlee, both red wines from Dauphine, of very good taſte, and hot upon the ſtomach.

De l'Hermitage upon the Roſne.

But the moſt excellent wines for ſtrength and flavour are the red and white St. Laurence, a town betwixt Toulon and Nice in Provence. This is a moſt delicious Muſcat. Theſe are of thoſe ſorts of wines, which the Romans called Vinum Paſſum, that were made of half ſun dried grapes: for the grapes (eſpecially the white Muſcadine grapes) being uſually ſooner ripe than the common grapes of the country, called Eſperan, viz. the latter end of Auguſt, (as I have ſeen them in the vintage at Vic, Mirabel, and Frontiniac, three towns near the ſea in Languedoc, where this ſort of wine is made) they twiſt the bunches of grapes, ſo breaking the ſtalks of them, that they receive no longer any nouriſhment from the vine, but hang down and dry in the then violently hot ſun, and are in few days almoſt turned into raiſins of the ſun; hence, from this inſolation, the flavour of the grape is exceedingly heightened, and the ſtrength and oilineſs, and thick body of the wine is mightily improved. I think the red St. Laurin was the moſt delicious wine I ever taſted in my life.

Beſides theſe, here are alſo the white wines of Orleans, Bourdeaux, Claret, and thoſe excellent wines from Cahors: alſo Cabreton, white and red, from about Bayone, ſtrong and delicious wines: and all ſorts of Spaniſh wines, as ſack, palme, mountaine, malaga, red and white, ſherries, and indeed the French are, of late, very deſirous to drink of the ſtrongeſt wines.

Beſides wines, there is no feaſting without the drinking at the deſert all ſorts of ſtrong waters, particularly ratafia's; which is a ſort of cherry brandy made with peach and apricot ſtones, highly piquant, and of a moſt agreeable flavour.

The pungent and acrimonious quality of theſe and ſuch like kernels was not unknown to the ancients, and very poiſonous to ſome animals. Dioſcorides tells us, a paſte made of the kernels of bitter almonds will throw hens into convulſions, and immediately kill them. Birds have but little brain, and ſo are the ſtronglier affected with this volatile venom. Not unlike effects it is poſſible ratafia may have in ſome tender and more delicate conſtitutions, and weak and feeble brains, and may be one cauſe of ſo many ſudden deaths, as have been obſerved of late.

Vattee is a ſort of perfumed ſtrong water from Provence, made (as it is pretended) of muſcat wine diſtilled with citron pills and orange flowers.

Fenoulliet de l'Iſle de Ree is valued much, it is much like our anniſeed water.

Theſe and many more ſorts of ſtrong waters, and ſtrong wines, both of France and Italy and Spain, are wont to be brought in at the latter end of the deſert in all great feaſts, and they drink freely of them. Which cuſtom is new: when I was formerly in France, I remember nothing of it. But it is the long war that has introduced them; the nobility and gentry ſuffering much in thoſe tedious campaigns, applied themſelves to theſe liquors to ſupport the difficulties and fatigues of weather and watchings; and at their return to Paris, introduced them to their tables. Sure I am, the Pariſians, both men and women, are ſtrangely altered in their conſtitutions and habit of body; from lean and ſlender, they are become fat and corpulent, the women eſpecially: which, in my opinion, can proceed from nothing ſo much as the daily drinking ſtrong liquors.

Add to theſe drinks the daily uſe of coffee with ſugar, tea, and chocolate, which now is as much in uſe in private houſes in Paris, as with us in London: and theſe ſugared liquors alſo add conſiderably to their corpulency.

I muſt not forget, that amongſt the drinks that are in uſe in Paris, cyder from Normandy is one. The beſt I drank of that kind, was of the colour of claret, reddiſh or brown; the apple that it was made of was called Frequins, which is round and yellow, but ſo bitter that it is not to be eaten; and yet the cyder that is made of it, is as ſweet as any new wine. It keeps many years good, and mends of its colour and taſte. I drank it often at a private houſe of a Norman gentleman, of whoſe growth it was; otherwiſe, if I had not been aſſured to the contrary, I could not have believed, but that it had been mixed with ſugar.

There are alſo very many public coffee-houſes, where tea alſo and chocolate may be had, and all the ſtrong waters and wine above-mentioned, and innumerable ale-houſes. I wonder at the great change of this ſober nation in this particular; but luxury like a whirlpool draws into it the extravagances of other people.

It was neceſſity, and the want of wine, (either naturally, as in a great part of Perſia and the Indies; or from their religion, as in Turkey,) that put men upon the invention of thoſe liquors of coffee and tea: chocolate, indeed, was found out by the poor ſtarved Indians, as ale was with us. But what elſe but a wanton luxury could diſpoſe theſe people, who abound in excellent wines, the moſt cordial and generous of all drinks, to ape the neceſſity of others.

Mighty

Mighty things indeed are ſaid of theſe drinks, according to the humour and fancy of the drinkers. I rather believe they are permitted by God's providence for the leſſening the number of mankind by ſhortening life, as a ſort of ſilent plague. Thoſe that plead for chocolate, ſay, it gives them a good ſtomach, if taken two hours before dinner. Right! who doubts it? you ſay, you are much more hungry having drank chocolate, than you had been if you had drunk none; that is, your ſtomach is faint, craving, and feels hollow and empty, and you cannot ſtay long for your dinner. Things that paſs thus ſoon out of the ſtomach, I ſuſpect, are little welcome there, and nature makes haſte to get ſhut of them. There are many things of this ſort which impoſe upon us by procuring a falſe hunger.

The wild Indians, and ſome of our people, no doubt digeſt it; but our pampered bodies can make little of it, and it proves to moſt tender conſtitutions perfect phyſic, at leaſt to the ſtomach, by cleanſing that into the guts; but that wears it out, and decays nature.

It is very remarkable with what greedineſs the Spaniards drink it, and how often in a day, five times, ſays Gage, at leaſt. The women drank it in the churches, and the diſorder could ſcarce be remedied. This ſhews how little it nouriſhes.

The old Romans did better with their luxury; they took their tea and chocolate after a full meal, and every man was his own cook in that caſe. Cæſar reſolved to be free, and eat and drink heartily, that is, to exceſs, with Tully; and for this purpoſe Cicero tells his friend Atticus, that before he lay down to table, Emeticen agebat, which I conſtrue, he prepared for himſelf his chocolate and tea; ſomething to make a quick riddance of what they eat and drank, ſome way or other.

There are two ſorts of water which they drink at Paris; water of the river Seine, which runs through the town; and the water brought in by the aqueduct of Arcueil, which, by the by, is one of the moſt magnificent buildings in and about Paris, and worth going to ſee. This noble canal of hewn ſtone conveys the water fifteen miles to Paris.

The river water is very pernicious to all ſtrangers, not the French excepted, that come from any diſtance, but not to the natives of Paris, cauſing looſeneſs, and ſometimes dyſenteries. I am apt to think the many ponds and lakes that are let into it to ſupply the ſluices upon the canal De Briare, are in part the cauſe of it. But thoſe who are careful of themſelves purify it by filling their ciſterns with ſand, and letting it ſink through it; which way clears it, and makes it very cool and palateable.

As for the ſpring water from the Maiſon des Eaux, it is wholeſome in this reſpect, and keeps the body firm; but it is very apt to give the ſtone, which the people of this town are infinitely ſubject to. An inſtance of this I had by chance, when coming from ſeeing the aqueduct of Arcueil, in the very road near the wall of the aqueduct, a great number of earthen pipes, which had ſerved to convey that water to ſome houſe, were caſt to mend the highways. I obſerved, that of four inches diameter the hollow of the pipes were all ſtopped up to the breadth of a ſhilling, with a firm ſtone petrified; ſo that they were forced to break up the pipes being altogether uſeleſs. Now what petrifies in the water-pipes is apt in ſome weak conſtitutions to petrify alſo in the kidneys and bladder. I think I have put this beyond diſpute in my treatiſe De Calculo Humano, and elſewhere.

In the next place we will ſee how the Pariſians divert themſelves; which conſiſts chiefly in plays, gaming, walking, or coaching.

The plays here are divided into two houſes: one for the operas, and the other for the comedies

I did

I did not ſee many operas, not being ſo good a Frenchman as to underſtand them when ſung. The Opera, called l'Europe Gallante, I was at ſeveral times, and it is looked upon as one of the very beſt. It is extremely fine, and the muſic and ſinging admirable: the ſtage large and magnificent, and well filled with actors: the ſcenes well ſuited to the thing, and as quick in the removal of them as can be thought: the dancing exquiſite, as being performed by the beſt maſters of that profeſſion in town: the cloathing rich, proper, and with great variety.

It is to be wondered, that theſe operas are ſo frequented. There are great numbers of the nobility that come daily to them, and ſome that can ſing them all. And it was one thing, that was troubleſome to us ſtrangers, to diſturb the box by theſe voluntary ſongs of ſome parts of the opera or other; that the ſpectators may be ſaid to be here as much actors, as thoſe employed upon the very ſtage.

The comedies have another houſe in another part of the town; for the operas are under the roof of Monſieur, and it is part of the Palais Royal.

The diſpoſition of the theatre is much the ſame; but ſomething leſs. And here the ſtage itſelf is to be let; where for ſtrangers, the places are moſt commodious to hear and ſee.

I heard many tragedies, but without guſt for want of language: but after them, the little plays were very diverting to me, particularly thoſe of Moliere, Vendange de Sureſne, Pourcegnac, Criſpin Medecin, le Medecin malgre luy, le Malade Imaginaire, &c.

In this all agree, that though Moliere's plays have leſs of intrigue in them; yet his characters of perſons are incomparable, ſo true and juſt, that nothing can be more. And for this reaſon, ſo many of them are only of two or three acts; for without an intrigue well laid, the characters would have failed him, in which was his excellency.

However, this is now ſo much become a cuſtom on the French ſtage; that you ever have one of theſe little pieces tacked to the tragedy, that you may pleaſe yourſelf according to your appetite.

It is ſaid Moliere died ſuddenly in acting the Malade Imaginaire: which is a good inſtance of his well perſonating the play he made, and how he could really put himſelf into any paſſion he had in his head. Alſo of the great danger ſtrong and vehement paſſions may cauſe in weak conſtitutions, ſuch as joy and fear; which hiſtory tells us, have killed many very ſuddenly. He is reported to have ſaid, going off the ſtage, *Meſſieurs, J'ay joué le Malade Imaginaire; mais je ſuis veritablement fort Malade;* and he died within two hours after. This account of Moliere is not in his life by Perault, but it is true: and he yet has blamed him for his folly, in perſecuting the art of phyſic, not the men, in divers of his plays.

Moliere ſent for Dr. M———, a phyſician in Paris of great eſteem and worth, and now in London, a refugé. Dr. M—— ſent him word, he would come to him, upon two conditions; the one, that he ſhould anſwer him only to ſuch queſtions as he ſhould aſk him, and not otherwiſe diſcourſe him; the other, that he ſhould oblige himſelf to take the medicines he ſhould preſcribe for him. But Moliere finding the doctor too hard for him, and not eaſily to be duped, refuſed them. His buſineſs, it ſeems, was to make a comical ſcene in expoſing one of the moſt learned men of the profeſſion, as he had done the quacks. If this was his intention, as in all probability it was, Moliere had as much malice as wit; which is only to be uſed to correct the viciouſneſs and folly of men pretending to knowledge, and not the arts themſelves.

This I muſt needs ſay, that obſcenity and immorality are not at all upon the French ſtage, no more than in the civil converſation of people of faſhion and good breeding.

One

One afternoon in Lent, I was to hear a ſermon at La Charite, preached by an abbot, a very young man. His text was about the angel's deſcent into the pool of Bethesda, and troubling the waters. I am not ſo good a Frenchman as to underſtand all he ſaid, but he had many good arguments about the neceſſity of grace, and the means to attain it. I was ſtrangely ſurpriſed at the vehemency of his action, which to me appeared altogether comical, and like the actors upon the ſtage, which I had ſeen a few days before: beſides, his expreſſions ſeemed to be in too familiar a ſtile. I always took a ſermon to the people to require a grave and ornate kind of eloquence, and not *verba quotidiana*, with a certain dignity of action; but it is poſſible this way here beſt ſuits with the cuſtoms and manners of the people; who are all motion, even when they ſay the eaſieſt and moſt intelligible things.

Gaming is a perpetual diverſion here, if not one of the debauches of the town: but games of mere hazard are ſtrictly forbid upon ſevere fines to the maſter of the houſe, as well private as public, where ſuch playing ſhall be diſcovered. This was done upon the account of the officers in the army; who, during the winter uſed to loſe the money, which was given them to make their recruits, and renew their equipages in the ſpring. And indeed, ſuch quick games, as baſſet, hazard, &c. where fortune in a manner is all in all, are great temptations to ruin, by the ſudden paſſions they are apt to raiſe in the players. Whereas games, where ſkill, and cunning, and much thought are employed, as well as luck, give a man time to cool, and recover his wits, if at any time great loſs ſhall have diſmounted his reaſon: for he muſt quickly come to himſelf again, or forfeit his ſkill and reputation in conducting the game, as well as huſbanding his money.

We were in Paris at the time of the fair of St. Germain. It laſts ſix weeks at leaſt; the place where it is kept well beſpeaks its antiquity; for it is a very pit or hole, in the middle of the Faubourg, and belongs to the great abbey of that name. You deſcend into it on all ſides, and in ſome places above twelve ſteps; ſo that the city is raiſed above it ſix or eight foot.

The building is a very barn, or frame of wood, tiled over; conſiſting of many long allies, croſſing one another, the floor of the allies unpaved, and of earth, and as uneven as may be: which makes it very uneaſy to walk in, were it not the vaſt croud of people which keep you up. But all this beſpeaks its antiquity, and the rudeneſs of the firſt ages of Paris, which is a foil to its politeneſs in all things elſe now.

The fair conſiſts of moſt toy-ſhops, and Bartholomew-fair ware; alſo fiance and pictures, joiner's work, linen and woollen manufactures; many of the great ribband ſhops remove out of the Palais hither; no books; many ſhops of confectioners, where the ladies are commodiouſly treated.

The great rendezvous is at night, after the play and opera are done; and raffling for all things vendible is the great diverſion; no ſhop wanting two or three raffling boards. Monſieur, the Dauphin, and other princes of the blood come, at leaſt once in the fair-time to grace it.

Here are alſo coffee-ſhops, where that and all ſorts of ſtrong liquors above-mentioned are ſold.

Knavery here is in perfection as with us; as dexterous cut-purſes and pick-pockets. A pick-pocket came into the fair at night, extremely well clad, with four lacqueys with good liveries attending him: he was caught in the fact, and more ſwords were drawn in his defence than againſt him; but yet he was taken, and delivered into the

here ſudden and no jeſt.

I was ſurprized at the impudence of a booth, which put out the pictures of ſome Indian beaſts with hard names; and of four that were painted, I found but two, and thoſe very ordinary ones, viz. a leopard, and a racoun. I aſked the fellow, why he deceived the people, and whether he did not fear cudgelling in the end: he anſwered with a ſingular confidence, that it was the painter's fault; that he had given the racoun to paint to two maſters, but both had miſtaken the beaſt; but however, (he ſaid) though the pictures were not well deſigned, they did nevertheleſs ſerve to grace the booth and bring him cuſtom.

I ſaw here a female elephant betwixt eight and nine foot high, very lean and ill kept. Nothing could be more docile, than this poor creature. I obſerved, ſhe bent the joints of her legs very nimbly in making her ſalutes to the company: alſo that the nails of her fore-toes were large, and almoſt five inches long. This was from the continent, having the ears entire. I had ſeen one about thirteen years ago in London much leſs, from the iſland of Ceylon, of another ſpecies with ſcallopt ears, and the tail with two rows of large, thick, and ſtiff black hairs.

Coaching in viſits is the great and daily buſineſs of people of quality: but in the evenings, the Cours de la Reyne is much frequented, and a great rendezvous of people of the beſt faſhion. The place indeed is very commodious and pleaſant, being three alleys ſet with high trees of a great length, all along the bank of the river Seine, incloſed at each end with noble gates; and in the middle a very large circle to turn in. The middle alley holds four lines of coaches at leaſt, and each ſide alley two a piece: theſe eight lines of coaches may, when full, ſuppoſing them to contain near eighty coaches a-piece, amount to about ſix or ſeven hundred. On the field ſide, joining cloſe to the alleys of the coaches, there are ſeveral acres of meadow planted with trees, well grown, into narrow alleys in quincunx order, to walk in the graſs, if any have a mind to light; and this muſt needs be very agreeable in the heats of ſummer, which we ſtaid not to enjoy.

One thing this Cours is ſhort of ours in Hyde-park, for if full, you cannot in an hour ſee the company twice you have a mind to ſee, and you are confined to your line; and oftentimes, the princes of the blood coming in, and driving at pleaſure, make a ſtrange ſtop and embarras.

Beſides, if the weather has been rainy, there is no driving in it, it is ſo miry and ill gravelled.

Thoſe, who have a mind to drive further out of town for the air, have woods, one to the weſt, and another to the eaſt, moſt convenient. I mean, the Bois de Bologne, and the Bois de Vincennes; this laſt is very opaque and pleaſant. There are ſome ancient Roman ſtatues in the firſt court of this houſe.

But for the caſtle in the Bois de Bologne, called Madrid, it was built by Francis the Firſt, and it is altogether moreſque, in imitation of one in Spain: with at leaſt two rows of covered galleries running quite round, on the outſide the four faces of the houſe; which ſure in a very hot country are greatly refreſhing and delightful: and this is ſaid to be built on purpoſe for a defence againſt a much hotter climate, than where it ſtands; which that king had no mind to viſit a ſecond time.

But let us return to Paris. Towards eight or nine o'clock in June moſt of them return from the Cours, and land at the garden gate of the Tuilleries, where they walk in the cool of the evening. This garden is of the beſt ordinance, and now in its full beauty, ſo that Monſ. Le Noſtre has ſeen it in its infancy, for it is all of his invention, and he enjoys his labours in perfection. Certainly the moving furniture of it at this time

time of the evening, is one of the nobleſt ſights, that can be ſeen. The night I came away from Paris, a lady of quality, Madam M——when I took my leave of her, aſked me, what I had ſeen in Paris that moſt pleaſed me; I anſwered her civilly, as I ought to do; but ſhe would not take my compliment, but urged me for anſwer: I told her, (ſince ſhe would have it ſo) that I juſt then came from ſeeing what pleaſed me beſt; that was, the middle walk of the Tuilleries in June, betwixt eight and nine at night. I did not think that there was in the world a more agreeable place, than that alley at that hour, and that time of the year.

And now we are got into the gardens of Paris I ſhall give you a ſhort taſte of all of them of note, at leaſt of ſuch as I ſaw.

This of the Tuilleries is vaſtly great, has ſhaded terraces on two ſides, one along the river Seine, planted with trees, very diverting, with great parterres in the middle, and large fountains of water, which conſtantly play; one end is the front of that magnificent palace the Louvre; the other is low, and for proſpects, open to the fields. The reſt is diſpoſed into alleys, and graſs-plots, and copſes of wood; with a great number of ſeats upon down in all parts, for the accommodation of the weary.

In the Tuilleries there is one thing, which I much liked, and that was an amphitheatre of cut hedges, with the ſtage, pits, and ſeats, and the ſcenes leading into the ſtage very pretty; from all ſides cloſe alleys leading into it.

Nothing can be more pleaſant, than this garden, where in the groves of wood the latter end of March, black-birds and throſtles, and nightingales ſing moſt ſweetly all the morning, and that as it were within the city; for no birding is ſuffered here near this city, and the fields round the town, are all, every where, full of partridges, and hares, and other game.

The garden of the palace of Luxenbourg is alſo vaſtly great, and has ſomething of champatre in it, like St. James's-park; it is alſo filled with people daily of good quality; but becauſe the hard winters have deſtroyed many of the walks, by killing the pole hedges, it is not ſo frequented, as formerly; *yet it hath its* fountains and parterres, and ſome well ſhaded alleys; and for air, I prefer it before the Tuilleries, becauſe it is ſeated upon a high ground next the fields, in the Fauxbourg of St. Germains.

As to the King's phyſic garden, it is a very great piece of ground, well furniſhed with plants, and open alſo to walk in, to all people of note. There is great variety of ground in it, as woods, ponds, meadows, mounts, beſides a vaſt level, by which it is fitted for the reception and growth of moſt ſorts of plants.

I firſt ſaw it in March with Dr. Tournefort, and Mr. Breman, a very underſtanding and painful gardener. The green-houſes well ſtored with tender exotics, and the parterres with ſimples; though but few of them then to be ſeen: yet by the trees and ſhrubs, and ſome plants, which did not loſe their heads, I could well judge of the furniture.

Dr. Tournefort told me, that he ſhewed a hundred plants every leſſon, and he had in the ſummer thirty leſſons, which made three thouſand plants; beſides the very early and late plants, which he reckoned could not be leſs than a thouſand more.

I took particular notice of theſe plants in the green-houſes at that time:

Jaſminum Aſoricum flore albo viridarii Regis Luſitanici.

Marum Cortuſii, which had been potted thirty years.

Caryophyllus Creticus arboreſcens.

Smilax fructu nigro.

Iris bulboſa florè luteo.

Symphytum minus Boraginis flore.
Fraxinus Americana florida.
Stæchas folio ſerrato Bauhini.

This garden is endowed by the king and duke of Orleans, and has 2000l. a year ſterling rents belonging to it, whereof 500l. is given to the chief phyſician who overlooks all, and the reſt to the botanic reader, Dr. Tourneſort, and under-gardeners, with lodgings for all.

Mr. Breman told me, he had the beginning of April made an end of ſowing his hot-beds, and had put into the ground two thouſand ſpecies of ſeed.

From the mount in the king's garden, on the other ſide of the river, upon the declivity of a high ridge of hills, I had a fair view of the palace or country-houſe of Father la Chaiſe, the King's confeſſor; it is very finely ſeated againſt the ſouth ſun, and well wooded on both ſides. A fit ſeat for a contemplative perſon.

The garden of the Palais Royal, conſidering it is in the middle of the town, is very large, has two or three great baſins with their jet d'eaux, but not well kept; nor hath any thing elegant in it, but the good order and diſpoſition of its ſhady walks and parterres. It is ever full of good company.

The garden of the arſenal is much larger, and finer kept; has the proſpects of the fields, and lies open to the ramparts. It is alſo much frequented for the beauty of its walks.

There are alſo divers convents, which have ſpacious and well kept gardens, which are always open and public to people of any note; as the Carthuſians, which is vaſt and champeſtre. The Celeſtians, very fine and large; that of St. Genevieve, which is great, and very well kept; and the terrace for length and breadth is incomparable; extremely well planted with horſe-cheſnuts; having alſo on the ſouth-ſide upon the terrace, three or four ſquare copſes of the ſame trees; which have a marvellous effect for ſhade in ſummer.

Theſe private gardens I ſaw in Paris.

D'Aumont. Its green-houſe opened into the dining-room: the orange trees ſeemed to have ſuffered, and had their leaves withered; for the room was too broad by half.

The treillage, at the upper end of the garden, was very well adorned with gilding, and had in the middle a pavilion, in which was an old Roman ſtatue of a young man, very well preſerved. The faſhion of the toga here was ſo evident, that it might well paſs for a conviction to thoſe, who have thought it to be a plaid, or a garment open before like a cloak.

This treillage is performed with that variety of ornaments, that it reſembles file-green work, and is large. The painting of theſe works in green is not well performed in all places alike; it is either too yellow, or of a ſad dirty green, or ſea green; few have hit the right graſs green colour. To do it well, it is to be primed in yellow, and then to be covered with Vert de Montagne or Lapis Armeniacus; of which laſt colour we have plenty in England, about Malham in Craven, in Yorkſhire.

This is the great benefit of treillage in cities, that beſides the beauty of it to the eye, it takes away and hides the ill proſpect of the neighbouring houſes.

Here are very many fig-trees well grown in ſquare boxes; and parterres well ſtocked with flowers; each ſort by themſelves; as tulips a-part; junkills a-part; anemonies a-part: ranunculuses a-part: daffadils a-part.

Puiſſart. This garden is very neat, and open at the end to the Tuilleries. The treillage walk or arbour at the upper end is very fine, ſeventy paces long, and eight

broad, hath three pavilions all open at the top. It is all of iron painted green, and coſt fifteen thouſand livres.

The gardener was an artiſt; and had ſome plants in caſes in good order, not to be ſeen elſewhere, as large roſemary buſhes, jacobæa maritima, marum ſyriacum, &c.

The walls were well covered with fruit trees; he had not cut his peaches; when I aſked him the reaſon, he told me, it was his way, not to cut them till after flowering, which he found by experience to improve the fruit; whereas he ſaid, the early cutting ſtocked them, and impaired the fruit.

The orangery here was the moſt beautiful room, for the bigneſs, I had ſeen, paved with marble, and neatly wainſcotted with oak, from the top to the bottom, after our Engliſh manner, I make no doubt it ſerved to eat in in ſummer, when cleared of trees.

Bouvillier. I found not any thing more remarkable here, than the treillage at the end.

Cormartin. The treillage in this garden was moſt admirable in the faſhion of a triumphal arch; half of it was an aviary, with a fountain in it, well ſtored with birds.

Here were large iron vaſas upon pedeſtals, the firſt I had ſeen of the kind, painted over of a copper colour.

Les Diguieres. This is the only houſe in Paris, I ſaw kept, in all the parts of it, with the moſt exact cleanlineſs and neatneſs, gardens and all.

In the garden there were ſeveral pieces of treillage; that at the upper end was very noble, and coſt ten thouſand livres; another piece of it coſt ſix thouſand. And I ſaw a ſmall one of iron leaves painted green, the only one of the kind. Here alſo were great vaſas of treillage upon pedeſtals.

The fountains in this garden were very curious, though ſmall, with proper ornaments, which had a marvellous effect, when the ſpouts played off.

The firſt court was ſet about with caſes of extraordinary large laurus tinus, and in the gardens there were ſome cut into ſquare pyramids.

A perſon of quality came into the garden to me, who with great civility conducted me up to the apartments.

In the apartment of the ducheſs, which was all of her own contrivance, and had an air of ſtate and agreeableneſs beyond any thing I had ſeen, I obſerved hanging down in the middle of the bed-chamber the fineſt chryſtal candleſtick in France: the pieces were all bought ſingle by her, and the contrivance and ſetting them together was her own: it coſt twelve thouſand crowns.

But before I left the garden, in an obſcure parterre I ſaw the tomb of a cat, viz. a black cat couchant upon a white marble cuſhion, fringed with gold, and gold taſſels hanging at the corners upon a ſquare black marble pedeſtal. On one of the ſides of that marble is writ in letters of gold;

Cy giſt Menine la plus amiable & la
Plus aimee de toutes les chattes.

On the other ſide.

Cy giſt une chatte jolie:
Sa maiſtreſſe, qui n' aimoit rien,
L'aime juſques à la folie
Pour quoy dire! on le voit bien.

This

This is not the firſt inſtance of this kind of folly; I have ſeen ſomething of it in England, and have read much more in hiſtory.

If you blame me for tranſcribing this epitaph, I will ſubmit; but I could never have forgiven myſelf, if I had tranſcribed the many fine inſcriptions I met with at Paris, though in moſt elegant and truly Roman words; others in pure court French. You may read them in the Deſcription of Paris.

De Lorge. We had the good fortune here to find the marſhal himſelf walking in his garden; who entertained us with great civility, viz. the dean of Wincheſter and myſelf. This garden was not finiſhed, and the houſe itſelf was but building; but it is one of the fineſt in Paris, and has the advantage of a moſt free and extended proſpect of the fields and Montmartre: at the end of the garden riſes a terrace equal with the rampart.

That which was in this houſe and garden very commodious and noble, was that betwixt the two courts the coaches drive through a ſtately hall upon pillars, and might land on either ſide, up a ſtep or two, which lead to the ſtaircaſes and other apartments; and then in the furtheſt court, which is only divided from the garden by high paliſadoes of iron, they turn, and take up the company again; ſo that no weather offends them. Which is much wanting here; and more with us at London, where we moſt need it.

This hall is open upon arches to the garden, and the ſtair-caſe itſelf is ſo contrived, that you enjoy a full proſpect of the garden and Montmartre in deſcending.

The marſhal very obligingly ſhewed us his own apartment; for all the reſt of the houſe was full of workmen; and in his bed-chamber his little red damaſk field-bed, which he lay in now, and which alſo ſerved him, when he commanded upon the Rhine.

He ſhewed us his great ſaſh windows; how eaſily they might be lifted up and down, and ſtood at any height; which contrivance of pullies he ſaid he had out of England, by a ſmall model brought on purpoſe from thence: there being nothing of this poiſe in windows in France before.

He alſo had us into a ſet of ſmall cloſets or rooms, after the Engliſh faſhion, very prettily furniſhed, neatly kept, and retired, with his Engliſh keys to them, as he told us; and from thence we deſcended a back pair of ſtairs. We did all we could to hinder him from ſeeing us take coach: he ſent his page after us, to invite us ſome day to eat with him.

Hoſtel Pelletier. The garden here was very neat, with a treillage at the end, after the manner of a triumphal arch, but not very high, nor well painted; yet its beauty and finiſhings differ much from any I had ſeen before. In the two niches were placed great iron vaſas or flower-pots, right before the middle of a baſin of water, which was ſet a playing for our entertainment, which is a compliment the French are willing to oblige ſtrangers with.

In the orangery were very large trees, and two pair of myrtles in caſes, cut globe-wiſe, the beſt and biggeſt I had ſeen: large buſhes in pots of Marum Syriacum. Great ſtore of tulips, anemonies, ranunculuſes, and other flowers in beds, in the parterre, each by themſelves.

Alſo anemonies and ranunculuſes in little earthen pots, as with us; but in very light mould. Great and very fair laurus tinuſes in caſes. And, which was ſingular, along one of the garden walls were planted Abel trees, whoſe tops were diſpoſed and ſpread by an iron treillage into arches at equal diſtances, which had a very good effect.

The garden of the Hoſtel-ſullie had nothing remarkable in it.

The beſt piéce of treillage of iron bars and wood intermixed, is that in the garden of feu Mons Louvois. And this is one of the neateſt gardens in Paris. The whole upper end is adorned with a noble treillage after the manner of a triumphal arch; it coſt a great ſum of money. There are four ſtatues diſpoſed on pedeſtals under it, which have a good effect; theſe are antique, rarely good. One of the firſt empreſſes, a Diana, an Apollo, &c. Here the walks are hard gravel, but not rolled. On one ſide of the treillage is a large aviary well ſtored with birds.

The walls of the green-houſe are matted; and large pans of iron hang down in the middle of the houſe, at equal diſtances, to every window one; they have pullies to let them down, or run them up to what height they pleaſe. This way may very well correct the moiſtneſs of the air, which the breath of the plants cauſe, and ſufficiently warm them. Hot beds puff up plants; yet a warm air over their heads may be as uſeful to refreſh and nouriſh them in winter.

The laſt private garden I ſaw was that of Mr. Furnier, a few days before we left the town, nothing could be prettier. At the upper end a noble treillage, two great vaſes of iron, painted of a braſs colour, and gilt.

Here I ſaw an apple tree potted, as the figs and oranges uſed to be; it was the white queenen, (or calvil d'eſte,) the ſtem of the bigneſs only of my thumb, full of fruit the firſt of June.

Many pots of Sedum Pyramidale, now a moſt elegant ornament. But nothing is here ſo pompous as double red and ſtriped ſtocks; which they multiply with care, and their pains are juſtly rewarded; with a thouſand other things, which my ſhort turn in the garden would not give me leave to remember.

There are great numbers of theſe private gardens in Paris, which deſerve ſeeing; but the ſeaſon of the year not much favouring our curioſity, we did not much enquire after them.

Hitherto I have given a ſhort account of what I ſaw *moſtly in* Paris, as to the people, abroad and at home; the country round about it, is full of populous and neat towns, and many palaces of the king and princes of the blood, which are not to be equalled with any thing we have in England. But I am unwilling to lead you any further, it being much out of my way and humour to go to court; but becauſe it was my fortune to be at Verſailles, St. Cloud, Marli, and Meudon, I will venture to ſay ſomething of each.

Theſe four royal palaces and their gardens poſſeſs a barren and hilly country, as big as moſt counties in England; two of them, Meudon and St. Cloud, have the proſpect of Paris under them; but the former hath it much more open and fully than the latter.

This diſtrict may be ſaid to be les Berceau des Roys, or the nurſery of kings; for the chief of the blood royal are lodged here, viz. the king, Monſeigneur the dauphin, and the three grandſons, the dukes of Burgundy, d'Anjou, and Berry, Monſieur or the king's brother, and his ſon the duke of Chartres, and Mademoiſelle his daughter. All theſe are, or will be (as it is eaſy to gueſs by the growth and proportions of the youngeſt) very large and well ſhaped beautiful people. The other branch of the blood royal, of the houſe of Bourbon, as the prince of Conde, the duke of Bourbon, and the princeſſes his daughters, the prince of Conti, are all of leſs ſtature, but very well ſhaped and handſome.

The duke du Maine and the conte de Toulouſe I did not ſee; but the princeſs dowager of Conti often, who is without diſpute one of the moſt graceful and handſomeſt women

women in France, and methinks exceedingly like the king her father, as I remember him in his full beauty, when I firſt ſaw him in the year 65.

Theſe four palaces are all entirely built and furniſhed in this king's time, and all the gardens, and what belongs to them.

St. Cloud is the neareſt Paris, and the caſtle is very magnificent, and moſt commodious. The great ſaloon and the gallery are extremely well painted.

The gardens are of a vaſt extent, twelve or fifteen miles in compaſs.

The natural woods on the ſouth-weſt ſide the houſe, are well huſbanded, and cut into ſmall and bigger alleys to ſave the trees; which they have had ſo great a care of, they have kept them ſtanding not only in the alleys, but in the very ſteps of ſtone which are made to deſcend into the alleys.

In the other parts of the garden the alleys are moſtly treble, and well ſhaded, run out in vaſt lengths of ſeveral miles, every where baſins and jets d'eaux; but there is a caſcade, which I ſaw ſeveral times play, and is ſaid to be the moſt beautiful and beſt furniſhed with water of any in France. In the middle of the large baſin amongſt the woods, I ſaw a jet d'eau, which threw up a ſpout of water ninety feet high, and did diſcharge itſelf with that force, that it made a miſt and coolneſs in the air a great compaſs round about, and gave now and then cracks like the going off of a piſtol; ſuch force the vent of wind in the pipes had.

The pipes which convey the water are compoſed of iron cylinders three feet long, ſome ten, ſome twenty inches diameter, till they divide; and then they are of lead.

I was once kindly invited to St. Cloud by Madame's phyſician, Monſieur Arlot, who ſent his coach for me to Paris, and nobly treated me; before dinner he carried me in his coach (for this privilege is granted him) into all parts, and round the gardens; which were well furniſhed with alleys and walks, adorned with cypreſs, pines, and firs, cut into pyramids; and water-works every where playing in abundance, particularly the gerbes d'eau were very fine, that is, great and thick, ſeeming ſtreams of water thrown up into the air. This is done to huſband the water by a great number of ſmall pipes like a ſheaf, to repreſent a ſolid pillar of water.

Monſieur has added, and taken into this vaſt garden, a new acquiſition of a mountainous plain, which overlooks all the country round; and will no doubt, when it is modelled by that admirable contriver Monſ. le Noſtre, make one of the moſt delightful places in the world.

From the baluſtrade in the upper garden, the river Seine, and a vaſt plain bounded by Paris, is to be ſeen, and makes a moſt delightful proſpect.

Theſe vaſt riding gardens are unknown to us in England, and *ſe promener a cheval, au en carroſſe*, is not Engliſh. We cannot afford to loſe ſo much country as thoſe gardens take up. I ſaw in ſome of the quarters not only partridges and hares plentifully, but, which I wondered at, five biches or female red-deer feeding.

The orangery belonging to this garden is very large and magnificent, paved with marble, and was filled with vaſt trees in caſes, not to be brought in or out without proper engines, but in it there was nothing but thoſe orange trees, oleanders, and laurus tinuſes. He goes out of the end of his apartment, that is, the noble painted gallery is continued upon a level with the orangery, which leads directly into an aſcending walk of a vaſt length; and alſo fronts or flanks all along the parterre or flower garden, where they are diſpoſed of in ſummer. At this treat I eat of a preſerve or wet ſweatmeat, made of orange flowers, incomparable; and the lady obliged me with the manner of making it.

Though

Though there were high and proper walls for fruit in many parts of the garden, yet nothing of that nature was to be found, only ordinary and infructiferous greens were faſtened to the treillage, which are the linings of moſt walls here. In the garden are many arbours of treillage, pavilions, &c. of iron mixed with wood, painted green, with honey-ſuckles running up them. Theſe gardens have above one hundred and fifty people always employed to keep them in order; which ſtands in 40,000 livres a year.

Another time I dined with the captain of the caſtle, who ſhewed me all the apartments at leiſure. I eat here of the red-legged partridge taken here upon theſe hills; they are much leſs here than in Languedoc, but yet far better taſted than the grey partridges taken in the ſame place. This was the beginning of April, and we drank our wine in ice, which I was not aware of, till I found the bad effect of it in my throat; and the next day much more; but it went off again without any great trouble. There is no animal that abuſes itſelf in meat and drink as man does; we daily drink exceſſive hot and exceſſive cold; in other creatures it is inſtinct that guides them, but as for us we neither act by inſtinct nor reaſon; but betwixt both looſely, and therefore oftener are catched to our own deſtruction.

At the end of the apartments of Monſieur, are a fine ſet of cloſets: the firſt you enter is furniſhed with great variety of rock chryſtals, cups, agates upon ſmall ſtands, and the ſides of the rooms are lined with large panes of looking-glaſs from top to the bottom, with Japan varniſh and paintings of equal breadth intermixt; which had a marvellous pretty effect. The other room had in it a vaſt quantity of bijou, and many of very great price; but the Siam pagods, and other things from thence, were very odd.

There was alſo one very ſmall Roman ſtatue of white marble, not ten inches high, which coſt 20,000 crowns; one leg of it was a little injured. It ſeemed a piece of admirable workmanſhip. It was a boy, who had in the ſkirt of his tunic a litter of puppies, and the bitch lying at his feet and looking up.

I cannot ſay much of Meudon, becauſe I was not within the houſe or park; it will require yet ſome time to bring it to that perfection which is deſigned; for that Monſeigneur has been but lately poſſeſſed of it. The road from Paris to it is yet unpaved; but the ſituation is admirable; and the eſplanade before the houſe is like a vaſt baſtion, and commands the full view of all the champagne, and Paris under it. The gardens are very great, but I only coaſted them and the houſe.

As to the palace of Verſailles, (which is yet ſome miles further within the mountainous country, not unlike Blackheath or Tunbridge) it is without diſpute the moſt magnificent of any in Europe. Yet what of it was firſt built, and much admired thirty years, is now no longer reliſhed. However this king intends to rebuild it where it is faulty. It is, as I ſaid, placed in a very ungrateful ſoil, without earth proper for herbs, or water; but he hath brought that to it in abundance, and made the ground too to be fruitful.

There are books writ to deſcribe this famous palace in every part; to which I refer the reader. The way to it is new, and in ſome places the mountains are cut down forty feet, ſo that now you enjoy it a mile in proſpect before you come to it; it opens and cloſes in three courts, the more remoteſt, narrower and narrower; which is a fault; and is, as I was told, deſigned to be pulled down, and made into one noble large ſquare court, of the ſame order of building as that magnificent front is which looks upon the gardens. The gilded tiles and roof have a marvellous effect in proſpect. The eſplanade towards the gardens and parterres are the nobleſt things that can be ſeen, vaſtly great, with

with a very large baſin of water in the middle, low walled round with white marble, on which are placed a great number of incomparable brazen vaſas, and large braſs figures couchant, of the beſt maſters in ſculpture; it were endleſs to tell all the furniture of theſe gardens, of marble ſtatues, and vaſas of braſs and marble, the multitude of fountains, and thoſe wide canals like ſeas running in a ſtraight line from the bottom of the gardens, as far as the eye can reach.

In a word, theſe gardens are a country laid out into alleys and walks, groves of trees, canals and fountains, and every where adorned with ancient and modern ſtatues and vaſas innumerable.

May the 17th, the water were ordered to play for the diverſion of the Engliſh gentlemen. The playing of the ſpouts of water, thrown up into the air, is here diverſified after a thouſand faſhions. The theatre des eaux, and the triumphal arch are the moſt famous pieces. But in the groves of the left hand, you have Æſop's fables, in ſo many pieces of water-works, here and there in winding alleys. This might be ſaid to be done in *uſum delphini*. It is pretty to ſee the owl waſhed by all the birds; the monkey hugging her young one, till it ſpouts out water with a full throat, and open mouth, &c.

The orangery, or winter conſervatory for tubs of winter greens, is what correſponds to the greatneſs of the reſt. It is a ſtupendous half ſquare of under-ground vaults, like the naves of ſo many churches put together, of exquiſite workmanſhip in hewn ſtone, well lighted and open to the ſouth ſun. It contains three thouſand caſas of greens; whereof near two thouſand are orange trees, and many hundreds of them are as big as generally they naturally grow in the earth. Hence amongſt them are ſome, which are ſaid to be in caſes from the time of Francis the Firſt.

They did not think fitting to put them out this year till the latter end of May; and indeed their oleanders, laurels, lentiſcuſes, and moſt other greens, had ſuffered miſerably.

In the pottagerie (which is part of theſe gardens, and hath its magnificence alſo) there are ſeven hundred caſes of figs, beſides wall fruit of all other kinds. By all the gardens in and about Paris, I perceived they are very fond of this fruit.

I obſerved in ſmall fiance or painted pots a vaſt number of the narrow leaved Laurus Alexandrina; alſo Thlapſi flore albo, Leucoii folio, latifolium; alſo the Sedum Pyramidale. Theſe are not yet ornaments in our gardens, that I know of, nor a great many other plants, which I obſerved in flower there; and at my return gave a catalogue of them to Mr. London that he might ſend for them, if he pleaſed. The plants I obſerved were vivace or perennial.

The 15th of May my lord ambaſſador went to Marli, where the waters played for his diverſion.

I muſt needs ſay it is one of the pleaſanteſt places I ever ſaw, or, I believe, is in Europe; it is ſeated in the boſom or upper end of a high valley, in the midſt of and ſurrounded with woody hills. The valley is cloſed at the upper end, and gently deſcends forwards by degrees, and opens wider and wider, and gives you the proſpect of a vaſt plain country, and the river Seine running through it.

Marli is a ſquare houſe raiſed upon ſteps, and terraced on all ſides: the four fronts all alike; and the doors opening into the garden all the ſame. In the middle an octagon-hall, running up domewiſe, in which all the ſide rooms meet; which are all rooms of ſtate. Above are twelve lodgings, with a narrow gallery leading to them. In the lower rooms at Marli, particularly in the octagon-ſalon, are extraordinary large, (ſix feet at leaſt,) marble, or rather agate tables; to the beſt of which they may be

compared.

compared. They are veined like wood, and of an amber colour: theſe are the admirable effect of petrifaction. Of this very ſtone I have ſeen great blocks in the banks of the dropping well at Knareſborough in Yorkſhire. I forgot to aſk here whence they had them.

In one of the ground rooms was a ſemicircular gilt bar or rail, which took off and incloſed the upper end of the room: within the bar was diſpoſed ſeveral rows of porcellain or fine china on gilt ſhelves. Here at the corners, within the bar, opened two ſmall doors, whence the ambaſſador and his retinue were plentifully ſerved with chocolate, tea, and coffee, in a moſt obliging manner. Many of the nobility and gentlemen of France were ordered to attend him there.

The two ſide fronts of the houſe have in proſpect great alleys cut through the woods, and paved for the more commodious coming down to the houſe; which is deſcending all the way.

On each ſide the valley, cloſe under the woods, run along in a line, ſix ſquare pavillions or ſmaller palaces of the very ſame figure and beauty with the Mother Houſe; at equal, but large diſtances, as five hundred paces. The ſix on the right hand the garden are for the men; the other ſix on the left are for the women of quality whom the king weekly appoints, upon a liſt given, to attend him, and enjoy the pleaſure of this retirement, as I may ſay, from court. Before thoſe pavillions, and betwixt them, are the fineſt alleys and walks imaginable, with fountains, and all the decorations of treillage and flowers. Such a ſhew of not ordinary tulips in broad beds, of one thouſand paces long, every where, all this vaſt garden over, in their full beauty, was a moſt ſurpriſing ſight. I could not forbear to ſay to the Duke de Villeroy, who was pleaſed much to accompany me in this walk, that ſure all the gardens in France had contributed to this profuſion of flowers; which he took ſo well, that the Mariſhal his father, afterwards detached himſelf to ſingle me out, and very obligingly embraced me, and ſaluted me with a kiſs, and followed it with very kind and familiar diſcourſe.

The caſcade coming down from the brow of the hill, on that front of the houſe which reſpects and ſtands near it, was new and ſingular, and of the king's own invention, as indeed, all the garden beſides. From the houſe it appeared a broad river, quietly gliding down the hill; but when I went near it, I found it compoſed of fifty-two large ſquare and ſhallow baſins of water, diſpoſed at right angles, and not declining, but falling over one into another.

In the garden were many fountains, nobly adorned, and had variety of water pipes playing up into the air in them. Here are ſome gerbes of a ſingular faſhion, with a circle of a great number of large pipes, within at leaſt two feet diameter; which made the appearance of a vaſt pillar of water. There was one jet d'eau in the bottom of the garden, which we were told threw up water 120 feet high; for of 50 and more fountains, we ſaw but thoſe on the ſide alleys to play; moſt of the great baſins in the middle were mending and dry. To furniſh all this water, there is a moſt ſtupendous machine, which was invented by two Liegois. This machine forces the water up 560 feet, from the river Seine, to the top of the tower or aqueduct. It throws up 5700 inches of water by almoſt continued ructations or quick pulſes. It is wrought by 14 wheels of 32 feet diameter each, ſet in the river, and carried about night and day by its ſtream.

This invention is the ſame with what is practiſed in the deep coal-pits about Leeds in Lower-Germany; ſo that to ſee the engines, and a great number of iron cylinders or water-pipes, lying bare above ground, and running up a vaſt mountain, is to imagine a deep coal-mine turned wrongſide outward.

The tree moſt in uſe here, was the ſmall-leaved horne-beam; which ſerves for arcades, berceaus; and alſo ſtandards with globular heads: at the foot of which they have planted little ſprigs of the ſame of a foot and half high; and alſo in ſome places in like manner, whole areas full of them; which cut ſmooth and level make the fineſt green hedges I ever ſaw; ſome of theſe low hedges were twelve feet broad, and in a barren and dry climate ſupply very artificially the uſe of graſs-plots.

It is certainly very commendable in the king, who pleaſes himſelf in planting and pruning the trees with his own hand, to make uſe of no other trees but what the neighbouring woods afford; ſo that it is admirable to ſee whole alleys of pole hedges of great height, and long rows of goodly ſtandard globes of eighteen months growth only.

If this great king, as he grows older, ſhould take a fancy to place himſelf in a warmer climate, (and he has a good one of his own, as any under the ſun, in Languedoc) as he does his winter greens in proper houſes; (and methinks, this inſtance alone ſhould be ſufficient, to convince him of the neceſſity there is to cheriſh decaying nature, and that a naturally warm air is a better fence than cloaths or fire) what wonders would not his purſe and paſſion for planting do there.

The next woods in Languedoc would afford laurel, and myrtles for pole hedges; lentiſcus's and phylarea's in as great abundance, as hazel or thorn with us. Alſo jaſmins for arbors and treillage; ciſtus's and roſemary, and a hundred other ſweet ſmelling woody ſhrubs grow every where in the fields, to furniſh the pots and vaſa.

There the tall cypres's grow of themſelves, to 60 and 100 feet high, like ſo many towers; and alſo tonſil at pleaſure, for the moſt beautiful pole hedges imaginable. The very fields are moſt excellent, and well furniſhed parterres of flowers, and are naturally pottageries, or kitchen gardens. The vineyards are very orchards; and all the moſt tender fruits with us are there ſtandards; as figs, and grapes of all ſorts, apricots, peaches, nectarines, jujubs, &c. The delicious and large cherries; and whatever has been ſaid to the contrary, pippins and pears there are in far greater perfection than with us, or in any parts of France elſe, beſides that happy climate.

What was it for ſo great a king to make a walk from *Marli* to Montpellier, or (if I might chooſe) to Peſcenas, ſeated in the boſom of a well watered valley, incloſed with perfumed hills. It is not half ſo far as betwixt Lahor and Agria, two ſeats the Mogul has thus joined. This would eterniſe his name, above any palace he has yet built, and bring to himſelf much health in his old age. The gardens of the Heſperides, and the labyrinths of Cande, ſo famous in hiſtory, would be nothing to ſuch wonderful performances, as his abilities and happy genius is capable of. For beſides the natural product of the country, the climate alſo is capable of producing, and nouriſhing with ſmall art and expence, whatever plants both the Indies can afford. Whereas, at this end of the world, we drudge in vain; and force a pleaſure which is dead and gone before we can well enjoy it: we have indeed a kind of ſhew of the ſummer delights, but all on a ſudden we drop into a long and tedious winter again. But we love the places we are uſed to, or born in. Man, to ſay the truth, is a very animal, as any quadruped of them all; and moſt of his actions are reſolvable into inſtinct, notwithſtanding the principles which cuſtom and education have ſuperinduced.

The pleaſure of ſeeing is ſcarce to be tired; but yet after two or three hours walk in ſo fine and great a garden, I was forced to make a halt behind the company, and glad to retire to the gilt bureau in the palace again, to refreſh myſelf, where I found ſome of the king's officers waiting, and ſome other gentlemen of the houſehold, who had made ſeveral campaigns in Flanders. I had now more a mind to a glaſs of cool Burgundy, than the inſignificant Indian liquors; which though I knew was againſt the

ſanctity

ſanctity of the place, yet nothing was denied me a ſtranger. Here being alone, we fell into diſcourſe of the Engliſh, and of their king. They willingly allowed the Engliſh to be truly brave; and now in peace they found alſo, that they were as civil, and well bred, as brave; that no nation had given the king and his court that ſatisfaction that the Engliſh had done; being curious and inquiſitive after all good things; they did ſee a great difference between them and other nations; they did not ſtare, and careleſsly run about, or hold up their heads, and deſpiſe what they ſaw; but had a true reliſh of every good thing, and made a good judgment of what was commendable; and therefore the king took pleaſure to have them ſhewed every thing. This diſcourſe of the Engliſh they concluded with a great encomium of King William.

As for their own king they were much in the praiſe of him, as one may eaſily imagine: that his retirement hither was moſtly for his health; that he left Verſailles every Tueſday night, and came hither with a ſelect company of lords and ladies; that he returned not till Saturday night, and ſometimes intermitted ten or fourteen days; ſo that he ſpent half of his time here in repoſe; that he was the moſt affable prince in the world, and never out of humour, of a pleaſant and open converſation where it pleaſed him; eaſy of acceſs, and never ſent any one away diſcontented; the moſt bountiful maſter in the world, of which there were ten thouſand inſtances; nothing of merit in any kind, but he moſt readily and cheerfully rewarded, ever, of late years at leaſt, preferring the virtuous; ſo on the other hand, he never ſpared the rebellious and obſtinate; that the government of his people could not be carried on with leſs ſeverity and ſtrictneſs; nor the taxes which were neceſſary to ſupport it, raiſed; that he delighted not in blood or perſecution; but that the art of government had different rules, according to the climate and nature of the people, where and upon whom it was to be put in practice. His great wiſdom appeared in nothing more, than in preſerving himſelf amidſt his troops, his converts, his court and numerous family, all in a manner fit for the throne. The greatneſs of his mind, and magnificence, in his buildings. *This was the ſum of the diſcourſe theſe gentlemen were pleaſed to entertain me with.*

At my return to Paris I was to ſee the pipinerie, or royal nurſery of plants, in the Fauxbourg of St. Honorie; where I met the maſter or comptroller of it, Monſieur Morley, one of the uſhers of the bed-chamber to the king.

He, like the reſt of the French nation, was civil to me; and ſhewed me a written almanac of flowering plants for the whole year, which he ſaid was an original; it might indeed, be ſo in French, but we have had almanacs for fruit and flowers, for every month in the year, printed divers times, for above this 30 years, thanks to Mr. Evelyn.

This ground incloſed with high walls is vaſtly big, as it ought to be, to ſupply the kings' gardens; here are ſeveral acres of young pines, cypreſſes, vues, &c. alſo vaſt beds of ſtock July flowers, of all ſorts of bulbes, as tulips, daffodills, crocus's, &c. and therefore I could eaſily believe him when he told me, he had ſent from hence to Marli alone, in four years time, eighteen millions of tulips and other bulbous flowers, for which he offered to ſhew me his memoirs.

He further told me, that the furniſhing the Trianon (a peculiar houſe of pleaſure, with its parterres at the end of the gardens at Verſailles) with flower pots in ſeaſon, every fourteen days in the ſummer, took up no leſs than ninety-two thouſand pots from hence.

Alſo from hence he could plant and furniſh in fourteen days time, any new garden the king ſhould cauſe to be made.

Here beſides the plants common to us and them, I ſaw a multitude of pots well conditioned of ſtæchas citrina folio latiuſculo.

Alſo a ſort of cotila, which bore large ſun flowers or marigolds, propagated by ſlips, called by him Amaroutre.

In this ground are ſeveral houſes to lodge the tender winter greens; amongſt the reſt there is one very large, which I may call the infirmary of ſick orange trees; which coming from Genoa by ſea, are here depoſited in a peculiar green houſe; and there were in it, and then actually carrying out into the air, (it was the 22d of May our ſtyle) 300 trees in caſes as thick as a man's thigh; but after ten, and ſome after ſeventeen years cheriſhing, had not yet got heads decent enough to be removed, and to appear at court, they being often forced to lop both tops and root, that they might recover them.

After all, it muſt be ſaid, that this magnificence, and the number of theſe palaces and gardens, are the beſt and moſt commendable effect of arbitrary government. If theſe expences were not in time of peace, what would be this king's riches, and the extreme poverty of the people? for it is ſaid, that every three years, ſome ſay much oftener, he has all the wealth of the nation in his coffers; ſo that there is a neceſſity he ſhould have as extravagant and incredible ways of expending it, that it may have its due circulation amongſt the people.

But when this vaſt wealth and power is turned to the diſturbance and deſtruction of mankind, it is terrible; and yet it hath its uſe too: we and all Europe have been taught, by the induſtry of this great king, mighty improvements in war; ſo that Europe has been theſe twelve years an over-match for the Turk; and we for France by the continuation of the war. The forty millions ſterling which the late war hath, and will coſt England, before all is paid, was well beſtowed, if it had been for no other end, than to teach us the full uſe and practice of war; and in that point to equal us with our neighbours.

It was obſerved by Polybius of the Romans, that wherever they met with an enemy, that had better weapons than themſelves, they changed with them; this docility gained them the empire of the world. On the contrary, thoſe late eaſtern tyrants have deſpiſed learning, and conſequently muſt ſubmit to the more refined valour of Europe. I ſay, the effects of arbitrary government, both in war and peace, are ſtupendous.

The Roman Emperors, becauſe abſolute lords of the people, far out-did the commonwealth in magnificent buildings, both public and private. Auguſtus left Rome a marble city, which he found of brick only. Nero burnt it and rebuilt it, and a golden palace for himſelf, like a city. Veſpaſian and Titus built amphitheatres and baths far ſurpaſſing any buildings now upon the face of the earth; in one of which 120,000 perſons might ſee and hear, and be ſeated with more convenience than upon our ſtages. Adrian viſited moſt parts of the world, on purpoſe to build cities. Trajan had his name on every wall, which he either reſtored or built. His pillar, and bridge over the Danube are ſtupendous monuments of his expences.

The Egyptian kings built them monuments, wherein they ſlaved their whole nation, and which are the wonders of the world to this day, the obeliſks I mean, and pyramids.

The Aſiatic Emperors of China and Japan have outdone the Europeans in this kind of immenſe buildings, as the wall in China, the cut rivers, and ſluices, and bridges there. In Japan the buildings are no leſs incredibly great.

Of this abſolute dominion we have examples even in thoſe two American empires, of Mexico and Peru. In this laſt, mere nature forced impoſſibilities without art, tools, or ſcience. The Cuſco fortreſs was a maſter-piece, where ſtones were laid upon ſtones, which no engine of ours could carry, or raiſe up; or tools better poliſh, and fit together; where a country near as big as all Europe, was turned into a garden, and cultivated better than Verſailles, and water-works brought to play and overſpread ſome

thouſands of miles, where it never rains. This was the only arbitrary government well applied to the good of mankind, I ever met with in hiſtory; where roads and ſtore-houſes of food and raiment were the guides, and numbered the miles for the travellers, and the whole empire turned into an uſeful and intelligible map.

As for the Turks, Perſians, and Mogul, the whole empire is intended ſolely for the pleaſure of one man; and here even tyranny itſelf is foully abuſed.

Yet I ſhould be loth to ſee them in any kind exemplified in England. In our happy iſland we ſee ſuch palaces and gardens, as are for the health and eaſe of man only; and what they want in magnificence, they have in neatneſs. There is not ſuch a thing as a gravel walk in or about Paris, nor a roller of any ſort; when it rains the Tuilleries are ſhut up, and one walks in dirt ſome days after. The graſs plots, or, as they call them bowling greens, are as ill kept, they clip them and beat them with flat beaters as they do their walks. This puts me in mind of what I ſaw in the garden of the Prince of Condé in Paris; where there was a graſſy circle of about four feet wide, round one of the fountains in the middle of the garden; to keep this down, and make it of a finer turf, the gardener had tethered two black lambs, and two white kids, at equal diſtances, which fed upon it. Whatever the effect was, I thought it looked pretty enough; and the little animals were as ornamental, as the graſs.

All the pai tings and prints made of late years of the king make him look very old; which in my mind is not ſo; for he is plump in the face, and is well coloured, and ſeems healthy, and eats and drinks heartily, which I ſaw him do; this is certainly an injury to him, and poſſibly in complaiſance to the Dauphin, or worſe. This is the meaneſt compliment I have known the French guilty of towards their prince; for there are every where expreſſions of another nature all over Paris. See the Deſcription of Paris, where they are collected and at large. The Romans under Auguſtus, (the firſt abſolute matter of that people, as this king is of the French) had upon this ſubject from the people a much finer thought, and wiſh, *De noſtris annis tibi Jupiter augeat annos.*

However it be, the king ſeems not to like Verſailles ſo well as he did; and has an opinion, that the air is not ſo good, as elſewhere; he leaves it (as I ſaid) every week on Tueſday night, and goes moſtly to Marli, or Meudon, and ſometimes to the Trianon, which is but at the end of the gardens, and returns not to Verſailles till Saturday night: beſides his extraordinary removes to Fontainbleau. I wonder no body puts him in mind of that paradiſe of France, Languedoc, where he may be with eaſe in four days, at the rate that kings uſe to travel. I had this diſcourſe at table with one of the introducteurs to the ambaſſador at Verſailles; but he could not bear it, it being againſt the intereſt of all ſettled courts to remove, though it were never ſo good for their prince's health. I remember but of one inſtance in hiſtory, and that was Aurenzebe the Great Mogul, who in his middle age fell deſperately ſick, and long languiſhed at Lahor; but took advice of ſome body about him, and went in his own kingdom a progreſs of one thouſand miles to Caſimire, a very mild and temperate climate, where he recovered, and lived to above a hundred years old, and is yet alive for ought I know.

The king now ſeldom or never plays, but contents himſelf ſometimes with looking on; but he hath formerly been engaged, and has loſt great ſums. Monſieur S. rooked him of near a million of livres at baſſet, by putting falſe cards upon him; but was impriſoned and baniſhed for it ſome years.

Before I give over the buſineſs of gardens and country, I will add ſome remarks, which ſeemed particular and new to me.

In the kitchen gardens at and near Paris, are a great number of apricot ſtandards; but kept low; very full of bloſſoms, and good bearers.

They

They make a conſerve of the fruit; which I like above any of their wet ſweetmeats; it was made by cutting them into thin ſlices, and throwing away the ſtone; which our people ſpare ſometimes, and leave in the fleſh intire, and ſpoils the ſweetmeat, and ſets it a fretting.

They employ the ſtones in brandy, and diſtil them in ſpirits.

In the beginning of April we had ſtore of aſparagus, but they were often ſo bitter, to me at leaſt, that there was little pleaſure in eating them. It is certain they were much worſe, than ours in England in that particular. Which puts me in mind of the wild aſparagus, which grows plentifully with us on the ſea coaſt in Lincolnſhire. This is very fair to the eye; yet no culture of our gardens, by often tranſplanting, could make it eatable. I fancy the aſparagus recovers ſomething of its natural force in a warmer climate; for the ſweet taſte is as it were a mark of degeneration. If they would have them good here, they muſt renew the ſeed from England or Holland.

The wild aſparagus of Languedoc is another plant called Corruda.

I procured out of Languedoc a ſort of Præcox vine, about fifty plants, by the Clermont carrier; the which I gave to Mr. London, our king's gardener, for my lord ambaſſador. This grape is white, very thin ſkinned, and clear as a drop of water; it is uſually ripe at St. John's-maſs in July at Montpellier, where it is called Des Unies.

There are alſo in this town Præcox grapes, as Dr. Turnefort told me in the phyſic garden; but whether the ſame with the Unies I know not.

I have ſaid they delight much in figs in pots or caſes; but here is another way of preſerving the fig trees ſet in the ground, which is much practiſed; and that is to lap, and tie them up in long ſtraw, from top to bottom; for which they are placed at a little diſtance from the walls. This alſo is practiſed to ſuch trees as ſtand in the middle of the parterre; they did not open them till mid-May.

The exotic trees, which the Pariſians moſt delight in, for their garden walks, and for the ſhade in their courts, are the Maroniers, or horſe chefnuts, of which they have innumerable; for the fruit ripens very well here, and comes up of itſelf. Alſo the Acacia Rovini, which is very common, and makes pretty alleys, and which they lop and turn to pollards, with good effect; but of theſe laſt the leaves are late in putting forth, it being the 15th of May our ſtyle, when theſe trees were ſcarce green.

May 25. When I took my leave of Monſieur Valliant, I found him in his flower garden; he ſhewed me a parcel of ranunculuſes, in full flower, which he had received but two years before from Conſtantinople; they were very beautiful and rare, at leaſt ſuch as I had never ſeen; as pure white, white and green, white and ſtriped with carnation, pure carnation or roſe-colour, ſtriped carnation, &c.

Of theſe he had ſold ſome a piſtole a root, and hoped in a year or two to be more plentifully ſtocked with them, that he might afford them cheaper. I did ſee afterwards a few of them in the royal pipinerie, and alſo in the ſeedſman's garden, Monſieur Le Febre: but both came from him.

I alſo took notice of his iron cradles or hoops over his beds, which were removeable, and to be made higher and lower, according to the height and nature of the flowers they were deſigned to cover. This, me thought, was far beyond all the inventions of wooden covers, and might with ſail-cloths and mats well ſerve for a ſort of portable green houſe, to the leſs tender plants.

I ſaw Le Febre's flower-garden, May 9. The tulips were in their prime; indeed, he had a very large and plentiful collection. The panaché or ſtriped tulips were many, and of great variety. He obſerved to me, that from his large and numerous beds of ſelf-flowered tulips, that is, of one colour, as red, yellow, &c. they expected yearly

yearly ſome ſtriped ones, which if perfect, that is, ſtriped in all the ſix leaves, would but doubtfully continue, and perhaps return to their former ſtate the next year; but if tyhe laboured, or did not finiſh the ſtripings of all the ſix leaves the firſt year, there were better hopes of their continuing in that ſtate.

Though I had no mind to deſcend into the ſtone pits, which are like our mines, well-faſhion, and the ſtones wound up with great wheels, to huſband the ſoil over them: yet I went to Vanre, three miles from the town, which is a ridge of hills that runs along to the obſervatory. Here the quarries are open on the ſide of the hill, as with us. In thoſe I obſerved two or three layers of ſtone, two or three foot thick, moſtly made up of ſhells, or ſtones in the faſhion of ſhells. Amongſt theſe ſhell-ſtones the moſt remarkable for bigneſs was a certain ſmooth and long buccinum, tapering with very many ſpires. I meaſured one whoſe firſt ſpire was eight inches diameter, the full length I could not ſo well come at; yet holding proportion with thoſe of the kind which lay flat, and which we could ſee in their full length, it muſt have been a foot long at leaſt. There is no buccinum in any of our ſeas a quarter ſo big. Here are many of this ſpecies. Alſo other large turbinated ſtones, which come near ſome of the Weſt India kinds of muſic ſhells, of which genus yet there are none in the European ſeas.

Theſe layers of ſtone mixed with ſhell-figured bodies, are at certain diſtances in the rock, and other rocks void of ſhells interpoſed.

Fanciful men may think what they pleaſe of this matter; ſure I am, until the hiſtory of nature, and more particularly that of minerals and foſſils is better looked into, and more accurately diſtinguiſhed, all reaſoning is in vain. It is to be obſerved, where men are moſt in the dark, there impudence reigns moſt, as upon this ſubject: they are not content fairly to diſſent, but to inſult every body elſe. In like manner upon the ſubject of mineral waters; how many ſcriblers have there been without any knowledge of foſſils?

I know not whether it be worth the noting, but it ſhews the humour of the French, that I ſaw in ſome country towns near Paris, the church wall near the top had a two feet broad mourning liſt, which compaſſed the whole church like a girdle, and on this was at certain diſtances, painted the arms of the lord of the manor, who was dead.

I ſhall conclude what I have to ſay further, with the air of Paris, and the ſtate of health and phyſic there.

The air of Paris is drier than that of England, notwithſtanding the greateſt part of the city is placed in a dirty miry level; the muddy banks of the river Seine witneſs this; alſo the old Latin name of Paris, *Lutetia;* but ſome of them are unwilling to derive it from *Lutum,* though there are ſeveral other towns in France, formerly more conſiderable than it, of that very name; but from the Greek original, as *Tolon, Tolouſa,* which in that language ſignify black dirt. We have an undoubted experiment of the different temper of the air in our Philoſophic Tranſactions; where it is demonſtrated, that there falls twice as much rain in England, as at Paris; regiſters of both having carefully been kept, for ſo many years, both here and in France.

From this quantity of rain with us, our fields are much greener; and it was a pleaſing ſurpriſe to me at my return, ſailing up the river of Thames, to ſee our green fields and paſtures on every ſide; but we pay dearly for it, in agues and coughs, and rheumatic diſtempers.

The winter was very rude and fierce, as was ever known in the memory of man; the cold winds very piercing; and the common people walk the ſtreets all in muffs, and

multitudes had little braſs kettles of ſmall-coal kindled, hanging on their arms; and yet you ſhould ſcarce hear any one cough.

I never ſaw a miſt at Paris in the ſix months I ſtaid there, but one; though a very broad river runs through the middle of the city, nor any very ſtrong winds; but this may be accidental, and the temper of ſome one year by chance.

We were very ſenſible by the 20th of February our ſtyle, though the nights were cold, and the white froſts great in the mornings, that the ſun at noon had a much ſtronger force and heat, than with us, at that time of the year.

Another argument of the dryneſs of the air at Paris, we had from the alteration of health; ſuch as were thick breathed, and coughed and ſpit much, ſoon recovered; and the inſenſible perſpiration of the ſkin was ſo clear and free, that the kidneys had little to do; ſo that it was obſerved by moſt, that though we drank pretty freely of the thin wines of Champagne and Burgundy, yet they never broke our ſleep to get ſhut of them; and that very little paſſed that way in the morning.

Laſtly, a ſign of the dryneſs and great goodneſs of the air of Paris is, the vaſt number of iron bars all over the city; which yet are moſtly intire, and the leaſt decayed with ruſt, I ever ſaw in any place; whereas ours in London are all in a few years all over ruſty, and miſerably eaten.

We were ſufficiently alarmed at our firſt coming to Paris, with the unwholeſomeneſs of the river water, and cautioned againſt drinking it; and yet it was almoſt impoſſible to avoid the bad effects of it; for within the month two thirds of the family fell into fluxes, ſome into dyſenteries, and ſome very ill of it. The French that come out of other remote countries ſuffer as well as the ſtrangers We were told boiling it was a good remedy to prevent its griping quality; but that is a mere notion, for we know mineral waters boiled have a ſtronger effect, and this quality can proceed from nothing leſs.

The well waters here are much worſe than the river waters, becauſe more mineral. But our ſafety was in the water brought from the *Maiſon des Eaux*, where the aqueduct of Arcueil empties itſelf to ſerve the great palaces and city fountains.

The diſeaſe of the dyſentery being one of the moſt common in Paris, the moſt celebrated drug for its cure is now the ipecacuanha; though I never once made uſe of it to any of our people, but cured them all as ſoon, and as well with our uſual remedies. Indeed they have great need of it here, for the poorer ſort of people, through ill diet, this water, and herbs, are very ſubject to it; this root is ſaid to cure it with as much certainty, and as readily, as the jeſuits powder an ague; of this moſt of the phyſicians and apothecaries agreed. They give it in powder from ten grains to forty, which is the largeſt doſe. It moſt commonly vomits, and ſometimes purges, but both gently. It is ſold here from twenty to fifty crowns a pound. They divide it into four ſorts, according to its goodneſs.

Another popular diſeaſe here is the ſtone; and there are men well practiſed in the cutting for it. There are alſo two hoſpitals, where great numbers are cut yearly, as La Charite, and Hotel Dieu, in both of theſe there are wired cheſts full of ſtones cut from human bodies; and in the cheſt of La Charite is one, which exceeds all belief; it was cut from a monk, who died in the very operation; it is as big as a child's head. It is but the model or pattern of the ſtone which is kept in the cheſt; which has this inſcription on it:

Figure & groſſeur de la pierre, peſant 51 *ounces, qui font trois livres trois ounces, qui a eſté tirée dans cet Hoſpital au mois de Juin* 1690, *& que l'on conſerve dans le Couvent de la Charité.*

But

But that which I ſhall here moſt inſiſt upon is the new way, practiſed by Pere Jaques, a monk. About the 20th of April he cut in the Hotel-Dieu ten in leſs than an hour's time: the third day after, all were hearty and without pain but one.

He cuts both by the grand and little appareil; in both he boldly thruſts in a broad lancet or ſtiletto into the middle of the muſcle of the thigh near the anus, till he joins the catheter or ſtaff, or the ſtone betwixt his fingers; then he widens the inciſion of the bladder in proportion to the ſtone with a ſilver oval hoop; if that will not do, he thruſts in his four fingers and tears it wider; then with the duck's bill he draws it out.

I ſaw him cut a ſecond time in the Hoſtel-Dieu; and he performed it upon nine perſons in three quarters of an hour, very dexterouſly. He ſeemed to venture at all; and put me into ſome diſorder with the cruelty of the operation; and a ſtouter Engliſhman than myſelf. However I viſited them all in their beds, and found them more amazed than in pain.

Pere Jaques cut alſo his way in the other hoſpital La Charitè, much about the ſame time, eleven at twice. Here Monſieur Marſhal, the beſt of the ſurgeons for this operation now in Paris, harangued againſt him before the governors, who coldly anſwered, they would be determined by the event, which way was beſt.

Atque hac ratione Fœminis Calculi omnium facillimè exciduntur; nempe ſcalpello intra vaginam uteri in veſicam adacto.

Of thoſe cut in La Charitè one died; and being diſſected, it was found he had his bladder pierced in four or five places; alſo the muſculus pſous ſadly mangled; alſo the left veſiculæ ſeminales cut.

Notwithſtanding this, if this method was well executed by a ſkilful hand, it might be of good uſe to mankind.

This way of cutting for the ſtone, puts me in mind of what I formerly wrote and publiſhed in the Phil. Tranſactions, about cutting above the os pubis, in the fund of the bladder.

Alſo of that experiment of cutting for the ſtone of an alderman of Doncaſter in the gluteus major, he was twice cut in the ſame place, and out-lived both. I ſaw the firſt ſtone, which was very large, and in ſome meaſure tranſparent, cryſtal like. This experiment is printed in Dr. Willies's Scarborough Spaw, fourteen years ago at leaſt, and is a fair hint for this new method.

Since my return I had a letter from Mr. Probie, a very learned and induſtrious young gentleman, who was with me to ſee the operation, that part relating to this matter I ſhall here tranſcribe. Indeed, I mightily longed for an account of this matter, the ſucceſs of which I came away too ſoon to learn any thing for certain.

Paris, Aug. 2, 98

"PERE JAQUE's reputation mightily ſlackens, out of forty-five that he cut at the hoſtel-dieu, but ſixteen of them ſurvive; and of nineteen in the Charitè, but eleven. He has practiſed at the hoſpital at Lyons, but, it is ſaid, with worſe ſucceſs than at Paris. I am ſenſible he has got abundance of enemies, which makes me very often queſtion, what I may hear ſaid of him. Dr. Fagon, the king's phyſician, told Dr. Turnfort, when he went to preſent his book to him, that he had cut ſeven at Verſailles, and that ſix of them are alive, and as well as if never cut. The perſon that died was ſo diſtempered, that he was not expected to live, and it was thought, if he had not been cut, he had not lived ſo long: the ſurgeons have a great mind to cry down the man, though they practiſe his method. For Marſhal has ſince cut after Pere Jaque's manner, only with this difference, that Marſhal's catheter was cannulated. Le Rue, the ſecond ſurgeon of the Charity hoſpital cut after the old manner, at the

 ſame

ſame time when Marſhal cut Pere Jaque's way, but had not ſo good ſucceſs as Marſhal had; for all that Marſhal cut are alive and very well, whereas the other loſt one or two of his number; beſides, thoſe that lived were not ſo ſoon cured, no, not by a month or ſix weeks." Thus far Mr. Probie.

The pox here is the great buſineſs of the town; a diſeaſe which in ſome meaſure hath contributed to the ruin of phyſic here, as in London. This ſecret ſervice hath introduced little contemptible animals of all ſorts into buſineſs, and hath given them occaſion to inſult families, after they had once the knowledge of theſe misfortunes. And it is for this reaſon the quacks here, as with us, do thrive vaſtly into great riches beyond any of the phyſicians, by treating privately theſe calamities.

It was a pleaſant diverſion to me to read upon the walls every where about the town, but more particularly in the Fauxbourgh of St. Germain, the quacks' bills printed in great uncial letters.

As,

De par l'ordre du Roy.

Remede infallible & commode pour la geriſon des maladies ſecretes ſans garder la chambre.

Another,

Par permiſſion de Roy.

Manniere tres aiſee & tres ſure pour guerir ſans incommodite, & ſans que perſone en appercoive, les maladies veneriennes, &c.

Another,

Par privilege du Roy.

L'Antivenerien de medicin Indien, pour toutes les maladies veneriennes, telles quelles puiſſent eſtre, ſans aucun retour, & ſans garder la chambre. Il eſt tres commode & le plus agreable de monde.

Another,

Remede aſſure de Sieur de la Brune privilege du Roy, &c. ſans qu'on ſoit contraint de garder la chambre, &c.

By theſe bills it is evident, there is yet a certain modeſty and decorum left in the concealing this diſeaſe, even amongſt the French: they would be cured ſecretly, and as though nothing were doing; which thoſe wretches highly promiſe. But this is that handle which gives thoſe mean people an occaſion to inſult their reputation, and injure them in their health for ever.

Every body here puts their helping hand, and meddles with the cure of this diſeaſe, as apothecaries, barbers, women, and monks; yet I did not find by all the inquiry I could make, that they had other remedies than we. Nay, there is ſomething practiſed in the cure of this diſtemper in England, which they at Paris know nothing of; but this old verſe forbids me to ſay any thing further:

Artem pudere proloqui, quam factitet.

The apothecaries' ſhops are neat enough, if they were but as well ſtored with medicines; and ſome are very finely adorned, and have an air of greatneſs, as that of Monſieur Geofferie, who has been provoſt des merchands, in the Rue Burtebur, where the entry to the Baſſe Cour is a port-cochier, with vaſas of copper in the niches of the windows; within are rooms adorned with huge vaſas and mortars of braſs, as well for ſight, as for uſe. The drugs and compoſitions are kept in cabinets diſpoſed round the room. Alſo laboratories backwards in great perfection and neatneſs. I muſt needs commend this gentleman for his civility towards me; and for his care in educating his

ſon, who came over with Count Tallard, a moſt hopeful and learned young man; whom our ſociety at Greſham-college, at my requeſt, honoured with admitting him fellow, according to his deſerts.

I had the opportunity of converſing with many of the phyſicians in this city; who all agree in the low condition and diſeſteem it was in, from the boundleſs confidence and intruding of quacks, women, and monks. Monſieur d'Achin, the late chief phyſician, has been ill thought on for taking money, and giving protection to theſe ſort of cattle; but the chief phyſician now, monſieur Fagon, is a man of great honour and learning, and very deſirous to promote the art.

It is here as with us, ſome practiſe out of mere vanity, others to make a penny any way to get bread. The cauſe of all this is, I think, the great confidence people have of their own ſkill, an arrogance without thinking. To paſs a judgment upon cures, and the good and evil practice of phyſic, without doubt is one of the niceſt things, even to men of the faculty; but a jury, that is, the very ordinary men in England, are ſuffered now to undertake the queſtion; when I may truly ſay, that I have ever found, no diſparagement to them, the moſt learned men of the nation, the moſt miſtaken in theſe matters; and can it be otherwiſe in ſo conjectural an art, when we ourſelves ſcarce know, when we have done ill or well.

Another cauſe of the low eſteem of phyſic here, are the ſorry fees that are given to phyſicians; which makes that ſcience not worth the application and ſtudy. The king indeed is very liberal, as in all things elſe, in his penſions to his chief phyſician, and gives his children good preferments.

Alſo Mr. Burdelot, who is alſo well penſioned, and lodged at Verſailles, phyſician to the ducheſs of Burgundy, a learned man; he is perfectly well ſkilled in the hiſtory of phyſic; and we may ſhortly (as he told me) expect from him, another ſupplement to Vauder Linden, of many thouſand volumes, which have eſcaped that catalogue, and are not accounted for.

Monſieur, and the dauphin, and all the princes of the blood, have their domeſtic phyſicians; ſome of whom I knew, as Monſieur Arlot, Monſieur Minot, to the Prince of Conti, of my acquaintance formerly at Montpelier. The two Morins very learned men; alſo Monſieur Grimodet, &c.

Others have the practice of nunneries and convents, which gives them bread; others have pariſhes; and ſome ſuch ſhifts they make; but all is wrong with them, and very little encouragement given to the faculty.

April 14. The Prince of Conti ſent his gentleman and coach at midnight to fetch me to his ſon, and to bring with me the late King Charles's drops to give him. This was a very haſty call. I told the meſſenger, I was the prince's very humble ſervant; but for any drops or other medicines I had brought nothing at all with me, and had uſed only ſuch as I found in their ſhops, for all the occaſions I had had to uſe any. I deſired he would tell him, that I was ready to conſult with his phyſicians upon his ſon's ſickneſs, if he pleaſed to command me, but for coming upon any other account I deſired to be excuſed; but I heard no more of the matter, and the young prince died. By this it is evident, there is as falſe a notion of phyſic in this country, as with us; and that it is here alſo thought a knack, more than a ſcience or method; and little chimical toys, the bijous of quacks, are mightily in requeſt. This hereſy hath poſſeſſed the moſt thinking, as well as the ignorant part of mankind; and for this we are beholden to the late vain expoſitors of nature, who have mightily inveighed againſt and undervalued the ancient Greek phyſicians, in whoſe works only this art is to be learnt, unleſs ſingle perſons could live over as many ages, as thoſe wiſe men did.

Men are apt to preſcribe to their phyſician, before he can poſſibly tell what he ſhall in his judgment think fitting to give; it is well if this was in negatives only; but they are prejudiced by the impertinence of the age, and our men, who ought to converſe with the patient and his relations with prognoſtics only, which are the honour of phyſic; and not play the philoſopher by fanciful and precarious interpretations of the natures of diſeaſes and medicines, to gain a ſort of credit with the ignorant; and ſuch certainly are all thoſe that have not ſtudied phyſic thoroughly, and in earneſt.

Thoſe drops were deſired of me by other perſons of quality, as the Princeſs d'Eſpinoy, the Ducheſs of Boullon, Monſieur Seſac, &c. and having bethought myſelf how my maſter, the late King Charles, had communicated them to me, and ſhewed me very obligingly the proceſs himſelf, by carrying me alone with him into his elaboratory at Whitehall, while it was diſtilling: alſo Mr. Chevins another time ſhewed me the materials for the drops in his apartment newly brought in, in great quantity, that is, raw ſilk: I cauſed the drops to be made here. Alſo I put Dr. Turnefort upon making of them; which he did in perfection, by diſtilling the fineſt raw ſilk he could get. For my part I was ſurpriſed at the experiment often repeated, having never tried it before. One pound of raw ſilk yielded an incredible quantity of volatile ſalt, and in proportion the fineſt ſpirit I ever taſted; and that which recommends it is, that it is when rectified, of a far more pleaſant ſmell, than that which comes from ſal armoniac or hartſhorne; and the ſalt refined and cohobated with any well ſcented chemical oil, makes the king's ſalt, as it is uſed to be called. This my lord ambaſſador gave me leave to preſent in his name; and the doctor now ſupplies thoſe which want. Silk, indeed is nothing elſe, but a dry jelly from the inſect kind, and therefore very cordial and ſtomachic no doubt. The Arabians were wiſe, and knowing in the *materia medica*, to have put it in their Alkermes.

This muſt be ſaid for the honour of this king, that he has ever given great encouragements for uſeful diſcoveries in all kinds, and particularly in phyſic. It is well known he bought the ſecret of the jeſuit's powder, and made it public; as he lately did that of the hypococana.

To conclude, it was my good fortune here to have a bundle of original papers of Sir Theodore Mayerne, and his friends, who correſponded with him, preſented me by the Reverend Dr. Wickar, Dean of Wincheſter, who marrying his kinſwoman found them amongſt other writings of law matters. I have not yet had the leiſure to peruſe them, but thoſe who know the worth of that great man, will deſire they may be made public; which if they are, they ſhall come forth intire, and not diſguiſed, as ſome of his other papers have been, to the great detriment of phyſic; and I think it is the firſt example of this nature, that poſthumous papers were ever abbreviated, and made what they never were before, an intire and full publication.

TRAVELS DURING THE YEARS 1787, 1788, *AND* 1789,

UNDERTAKEN MORE PARTICULARLY WITH A VIEW OF ASCERTAINING THE CULTIVATION, WEALTH, RESOURCES, AND NATIONAL PROSPERITY OF THE KINGDOM OF FRANCE,

BY ARTHUR YOUNG, ESQ. F. R. S.

PREFACE.

IT is a queſtion whether modern hiſtory has any thing more curious to offer to the attention of the politician, than the progreſs and rivalſhip of the French and Engliſh empires, from the miniſtry of Colbert to the revolution in France. In the courſe of thoſe 130 years, both have figured with a degree of ſplendour that has attracted the admiration of mankind.

In proportion to the power, the wealth, and the reſources of theſe nations, is the intereſt which the world in general takes in the maxims of political œconomy by which they have been governed. To examine how far the ſyſtem of that œconomy has influenced agriculture, manufactures, commerce, and public felicity, is certainly an inquiry of no ſlight importance; and ſo many books have been compoſed on the theory of theſe, that the public can hardly think that time miſemployed which attempts to give the practice.

The ſurvey which I made, ſome years paſt, of the agriculture of England and Ireland (the minutes of which I publiſhed under the title of Tours), was ſuch a ſtep towards underſtanding the ſtate of our huſbandry as I ſhall not preſume to characteriſe; there are but few of the European nations that do not read theſe Tours in their own language; and notwithſtanding all their faults and deficiencies, it has been often regretted, that no ſimilar deſcription of France could be reſorted to either by the farmer or the politician. Indeed it could not but be lamented, that this vaſt kingdom, which has ſo much figured in hiſtory, were like to remain another century unknown, with reſpect to thoſe circumſtances that are the objects of my inquiries. An hundred and thirty years have paſſed, including one of the moſt active and conſpicuous reigns upon record, in which the French power and reſources, though much overſtrained, were formidable to Europe. How far were that power and thoſe reſources founded on the permanent baſis of an enlightened agriculture? how far on the more inſecure ſupport of manufactures and commerce? how far have wealth and power and exterior ſplendour, from whatever cauſe they may have ariſen, reflected back upon the people the proſperity they implied? very curious inquiries; yet reſolved inſufficiently by thoſe whoſe political reveries are ſpun by their fire-ſides, or caught flying as they are whirled through Europe in poſt-chaiſes. A man who is not practically acquainted with agriculture, knows not how to make thoſe inquiries; he ſcarcely knows how to diſcriminate the circumſtances productive of miſery, from thoſe which generate the felicity of a people; an aſſertion that will not appear paradoxical, to thoſe who have attended cloſely to theſe ſubjects. At the ſame time, the mere agriculturiſt, who makes ſuch journies, ſees little or nothing of the connection between the practice in the fields, and the reſources of the empire; of combinations that take place between operations apparently unimportant, and the general in-

tereſt of the ſtate; combinations ſo curious, as to convert, in ſome caſes, well cultivated fields into ſcenes of miſery, and accuracy of huſbandry into the parent of national weakneſs. Theſe are ſubjects that never will be underſtood from the ſpeculations of the mere farmer, or the mere politician; they demand a mixture of both; and the inveſtigation of a mind free from prejudice, particularly national prejudice; from the love of ſyſtem, and of the vain theories that are to be found in the cloſets of ſpeculators alone. God forbid that I ſhould be guilty of the vanity of ſuppoſing myſelf thus endowed! I know too well the contrary; and have no other pretenſion to undertake ſo arduous a work, than that of having reported the agriculture of England with ſome little ſucceſs. Twenty year's experience, ſince that attempt, may make me hope to be not leſs qualified for ſimilar exertions at preſent.

The clouds that for four or five years paſt, have indicated a change in the political ſky of the French hemiſphere, and which have ſince gathered to ſo ſingular a ſtorm, have rendered it more intereſting to know what France was previouſly to any change. It would indeed have been matter of aſtoniſhment, if monarchy had riſen, and had ſet in that region, without the kingdom having had any examination profeſſedly agricultural.

The candid reader will not expect, from the regiſters of a traveller, that minute analyſis of common practice, which a man is enabled to give, who reſides ſome months, or years, confined to one ſpot; twenty men, employed during twenty years, would not effect it; and ſuppoſing it done, not one thouſandth part of their labours would be worth a peruſal. Some ſingularly enlightened diſtricts merit ſuch attention: but the number of them, in any country is, inconſiderable; and the practices that deſerve ſuch a ſtudy, perhaps, ſtill fewer: to know that unlightened practices exiſt, and want improvement, is the chief knowledge that is of uſe to convey; and this rather for the ſtateſman than the farmer. No reader, if he knows any thing of my ſituation, will expect, in this work, what the advantages of rank and fortune are neceſſary to produce—of ſuch I had none to exert, and could combat difficulties with no other arms than unremitted attention, and unabating induſtry. Had my aims been ſeconded by that ſucceſs in life, which gives energy to effort, and vigour to purſuit, the work would have been more worthy of the public eye; but ſuch ſucceſs muſt, in this kingdom, be ſooner looked for in any other path than that of the plough; *non ullus aratro dignus honos*, was not more applicable to a period of confuſion and bloodſhed at Rome, than to one of peace and luxury in England.

One circumſtance I may be allowed to mention, becauſe it will ſhew, that whatever faults the enſuing pages contain, they do not flow from any preſumptive expectation of ſucceſs; a feeling that belongs to writers only, much more popular than myſelf: when the publiſher agreed to run the hazard of printing theſe papers, and ſome progreſs being made in the journal, the whole MS. was put into the compoſitor's hand to be examined, if there were a ſufficiency for a volume of 60 ſheets; he found enough prepared for the preſs to fill 140: and I aſſure the reader, that the ſucceſſive employment of ſtriking out and mutilating more than the half of what I had written, was executed with more indifference than regret, even though it obliged me to exclude ſeveral chapters, upon which I had taken conſiderable pains. The publiſher would have printed the whole; but whatever faults may be found with the author, he ought at leaſt to be exempted from the imputation of an undue confidence in the public favour; ſince, to expunge was undertaken as readily as to compoſe. So much depended in the ſecond part of the work on accurate figures, that I did not care to truſt myſelf, but employed a ſchoolmaſter, who has the reputation of being a good arithmetician, for examining the calculations, and I hope he has not let any material errors eſcape him.

The

The revolution in France was a hazardous and critical subject, but too important to be neglected; the details I have given, and the reflections I have ventured will, I truſt, be received with candour by thoſe who conſider how many authors, of no inconſiderable ability and reputation, have failed on that difficult theme: the courſe I have ſteered is ſo removed from extremes, that I can hardly hope for the approbation of more than a few; and I may apply to myſelf, in this inſtance, the words of Swift:—"I have the ambition, common with other reaſoners, to wiſh at leaſt that both parties may think me in the right; but if that is not to be hoped for, my next wiſh ſhould be, that both might think me in the wrong; which I would underſtand as an ample juſtification of myſelf, and a ſure ground to believe that I have proceeded at leaſt with impartiality, and perhaps with truth."

Reduction of Livres, at ten-pence halfpenny each.

No.	£.	s.	d.	No.	£.	s.	d.	No.	£.	s.	d.	No.	£.	s.	d.	No.	£.	s.	d.	No.	£.	s.	d.
1	0	0	10½	42	1	16	9	83	3	12	7½	340	14	17	6	750	32	16	3	2600	113	15	0
2	0	1	9	43	1	17	7½	84	3	13	6	350	15	6	3	760	33	5	0	2700	118	2	6
3	0	2	7½	44	1	18	6	85	3	14	4½	360	15	15	0	770	33	13	9	2800	122	10	0
4	0	3	6	45	1	19	4½	86	3	15	3	370	16	3	9	780	34	2	6	2900	126	17	6
5	0	4	4½	46	2	0	3	87	3	16	1½	380	16	12	6	790	34	11	3	3000	131	5	0
6	0	5	3	47	2	1	1½	88	3	17	0	390	17	1	3	800	35	0	0	3100	135	12	6
7	0	6	1½	48	2	2	0	89	3	17	10½	400	17	10	0	810	35	8	9	3200	140	0	0
8	0	7	0	49	2	2	10½	90	3	18	9	410	17	18	9	820	35	17	6	3300	144	7	6
9	0	7	10½	50	2	3	9	91	3	19	7½	420	18	7	6	830	36	6	3	3400	148	15	0
10	0	8	9	51	2	4	7½	92	4	0	6	430	18	16	3	840	36	15	0	3500	153	2	6
11	0	9	7½	52	2	5	6	93	4	1	4½	440	19	5	0	850	37	3	9	3600	157	10	0
12	0	10	6	53	2	6	4½	94	4	2	3	450	19	13	9	860	37	12	6	3700	161	17	6
13	0	11	4½	54	2	7	3	95	4	3	1½	460	20	2	6	870	38	1	3	3800	166	5	0
14	0	12	3	55	2	8	1½	96	4	4	0	470	20	11	3	880	38	10	0	3900	170	12	6
15	0	13	1½	56	2	9	0	97	4	4	10½	480	21	0	0	890	38	18	9	4000	175	0	0
16	0	14	0	57	2	9	10½	98	4	5	9	490	21	8	9	900	39	7	6	4100	179	7	6
17	0	14	10½	58	2	10	9	99	4	6	7½	500	21	17	6	910	39	16	3	4200	183	15	0
18	0	15	9	59	2	11	7½	100	4	7	6	510	22	6	3	920	40	5	0	4300	188	2	6
19	0	16	7½	60	2	12	6	110	4	16	3	520	22	15	0	930	40	13	9	4400	192	10	0
20	0	17	6	61	2	13	4½	120	5	5	0	530	23	3	9	940	41	2	6	4500	196	17	6
21	0	18	4½	62	2	14	3	130	5	13	9	540	23	12	6	950	41	11	3	4600	201	5	0
22	0	19	3	63	2	15	1½	140	6	2	6	550	24	1	3	960	42	0	0	4700	205	12	6
23	1	0	1½	64	2	16	0	150	6	11	3	560	24	10	0	970	42	8	9	4800	210	0	0
24	1	1	0	65	2	16	10½	160	7	0	0	570	24	18	9	980	42	17	6	4900	214	7	6
25	1	1	10½	66	2	17	9	170	7	8	9	580	25	7	6	990	43	6	3	5000	218	15	0
26	1	2	9	67	2	18	7½	180	7	17	6	590	25	16	3	1000	43	15	0	6000	262	10	0
27	1	3	7½	68	2	19	6	190	8	6	3	600	26	5	0	1100	48	2	6	7000	306	5	0
28	1	4	6	69	3	0	4½	200	8	15	0	610	26	13	9	1200	52	10	0	8000	350	0	0
29	1	5	4½	70	3	1	3	210	9	3	9	620	27	2	6	1300	56	17	6	9000	393	15	0
30	1	6	3	71	3	2	1½	220	9	12	6	630	27	11	3	1400	61	5	0	10,000	437	10	0
31	1	7	1½	72	3	3	0	230	10	1	3	640	28	0	0	1500	65	12	6	20,000	875	0	0
32	1	8	0	73	3	3	10½	240	10	10	0	650	28	8	9	1600	70	0	0	30,000	1312	10	0
33	1	8	10½	74	3	4	9	250	10	18	9	660	28	17	6	1700	74	7	6	40,000	1750	0	0
34	1	9	9	75	3	5	7½	260	11	7	6	670	29	6	3	1800	78	15	0	50,000	2187	0	0
35	1	10	7½	76	3	6	6	270	11	16	3	680	29	15	0	1900	83	2	6	60,000	2625	0	0
36	1	11	6	77	3	7	4½	280	12	5	0	690	30	3	9	2000	87	10	0	70,000	3062	10	0
37	1	12	4½	78	3	8	3	290	12	13	9	700	30	12	6	2100	91	17	6	80,000	3500	0	0
38	1	13	3	79	3	9	1½	300	13	2	6	710	31	1	3	2200	96	5	0	90,000	3937	0	0
39	1	14	1½	80	3	10	0	310	13	11	3	720	31	10	0	2300	100	12	6	100,000	4375	0	0
40	1	15	0	81	3	10	10½	320	14	0	0	730	31	18	9	2400	105	0	0	200,000	8750	0	0
41	1	15	10½	82	3	11	9	330	14	8	9	740	32	7	6	2500	109	7	6	300,000	13,125	0	0

No.	£.	s.	d.	No.	£.	s.	d.	No.	£.	No.	£.
400,000	17,500	0	0	7,000,000	306,250	0	0	19,000,000	831,250	400,000,000	17,500,000
500,000	21,875	0	0	8,000,000	350,000	0	0	20,000,000	875,000	500,000,000	21,875,000
600,000	26,250	0	0	9,000,000	393,750	0	0	30,000,000	1,312,500	600,000,000	26,250,000
700,000	30,625	0	0	10,000,000	437,500	0	0	40,000,000	1,750,000	700,000,000	30,625,000
800,000	35,000	0	0	11,000,000	481,250	0	0	50,000,000	2,187,500	800,000,000	35,000,000
900,000	39,375	0	0	12,000,000	425,000	0	0	60,000,000	2,625,000	900,000,000	39,375,000
1,000,000	43,750	0	0	13,000,000	568,750	0	0	70,000,000	3,062,500	1000,000,000	43,750,000
2,000,000	87,500	0	0	14,000,000	612,500	0	0	80,000,000	3,500,000	2000,000,000	87,500,000
3,000,000	131,250	0	0	15,000,000	656,250	0	0	90,000,000	3,937,500	3000,000,000	131,250,000
4,000,000	175,000	0	0	16,000,000	700,000	0	0	100,000,000	4,375,000	4000,000,000	175,000,000
5,000,000	218,750	0	0	17,000,000	743,750	0	0	200,000,000	8,750,000	5000,000,000	218,750,000
6,000,000	262,500	0	0	18,000,000	787,500	0	0	300,000,000	13,125,000	6000,000,000	262,500,000

TRAVELS, &c.

THERE are two methods of writing travels; to regiſter the journey itſelf, or the reſult of it. In the former caſe it is a diary, under which head are to be claſſed all thoſe books of travels written in the form of letters. The latter uſually falls into the ſhape of eſſays on diſtinct ſubjects. Of the former method of compoſing, almoſt every book of modern travels is an example. Of the latter, the admirable eſſays of my valuable friend Mr. Profeſſor Symonds, upon Italian agriculture, are the moſt perfect ſpecimens.

It is of very little importance what form is adopted by a man of real genius; he will make any form uſeful, and any information intereſting. But for perſons of more moderate talents, it is of conſequence to conſider the circumſtances for and againſt both theſe modes.

The journal form hath the advantage of carrying with it a greater degree of credibility; and, of courſe, more weight. A traveller who thus regiſters his obſervations is detected the moment he writes of things he has not ſeen. He is precluded from giving ſtudied or elaborate remarks upon inſufficient foundations: if he ſees little he muſt regiſter little: if he has few good opportunities of being well informed, the reader is enabled to obſerve it, and will be induced to give no more credit to his relations than the ſources of them appear to deſerve: if he paſſes ſo rapidly through a country as neceſſarily to be no judge of what he ſees, the reader knows it: if he dwells long in places of little or no moment with private views or for private buſineſs, the circumſtance is ſeen; and thus the reader has the ſatisfaction of being as ſafe from impoſition either deſigned or involuntary, as the nature of the caſe will admit: all which advantages are wanted in the other method.

But to balance them, there are on the other hand ſome weighty inconveniences; among theſe the principal is, the prolixity to which a diary generally leads; the very mode of writing almoſt making it inevitable. It neceſſarily cauſes repetitions of the ſame ſubjects and the ſame ideas; and that ſurely muſt be deemed no inconſiderable fault, when one employs many words to ſay what might be better ſaid in a few. Another capital objection is, that ſubjects of importance, inſtead of being treated *de ſuite* for illuſtration or compariſon, are given by ſcraps as received, without order, and without connection; a mode which leſſens the effect of writing, and deſtroys much of its utility.

In favour of compoſing eſſays on the principal objects that have been obſerved, that is, giving the reſult of travels and not the travels themſelves, there is this obvious and great

great advantage, that the ſubjects thus treated are in as complete a ſtate of combination and illuſtration as the abilities of the author can make them; the matter comes with full force and effect. Another admirable circumſtance is brevity; for by the rejection of all uſeleſs details, the reader has nothing before him but what tends to the full explanation of the ſubject: of the diſadvantages, I need not ſpeak; they are ſufficiently noted by ſhewing the benefits of the diary form; for proportionably to the benefits of the one, will clearly be the diſadvantages of the other.

After weighing the *pour* and the *contre*, I think that it is not impracticable in my peculiar caſe to retain the benefits of both theſe plans.

With one leading and predominant object in view, namely agriculture, I have conceived that I might throw each ſubject of it into diſtinct chapters, retaining all the advantages which ariſe from compoſing the reſult only of my travels.

At the ſame time, that the reader may have whatever ſatisfaction flows from the diary form, the obſervations which I made upon the face of the countries through which I paſſed; and upon the manners, cuſtoms, amuſements, towns, roads, ſeats, &c. may, without injury, be given in a journal, and thus ſatisfy the reader in all thoſe points, with which he ought in candour to be made acquainted, for the reaſons above intimated.

It is upon this idea that I have reviewed my notes, and executed the work I now offer to the public.

But travelling upon paper, as well as moving amongſt rocks and rivers, hath its difficulties. When I had traced my plan, and begun to work upon it, I rejected, without mercy, a variety of little circumſtances relating to myſelf only, and of converſations with various perſons which I had thrown upon paper for the amuſement of my family and intimate friends. For this I was remonſtrated with by a perſon, of whoſe judgment I think highly, as having abſolutely ſpoiled my diary, by expunging the very paſſages that would beſt pleaſe the maſs of common readers; in a word, that I muſt give up the journal plan entirely, or let it go as it was written.—To treat the public like a friend, let them ſee all, and truſt to their candour for forgiving trifles. He reaſoned thus: "Depend on it, Young, that thoſe notes you wrote at the moment, are more likely to pleaſe than what you will now produce coolly, with the idea of reputation in your head: whatever you ſtrike out will be what is moſt intereſting, for you will be guided by the importance of the ſubject; and believe me, it is not this conſideration that pleaſes ſo much as a careleſs and eaſy mode of thinking and writing, which every man exerciſes moſt when he does not compoſe for the preſs. That I am right in this opinion you yourſelf afford a proof. Your tour of Ireland (he was pleaſed to ſay) is one of the beſt accounts of a country I have read, yet it had no great ſucceſs. Why? becauſe the chief part of it is a farming diary, which, however valuable it may be to conſult, nobody will read. If, therefore, you print your journal at all, print it ſo as to be read; or reject the method entirely, and confine yourſelf to ſet diſſertations. Remember the travels of Dr. —— and Mrs. ——, from which it would be difficult to gather one ſingle important idea, yet they were received with applauſe; nay, the bagatelles of Baretti, amongſt the Spaniſh muleteers were read with avidity.

The high opinion I have of the judgment of my friend, induced me to follow his advice; in conſequence of which, I venture to offer my itinerary to the public, juſt as it was written on the ſpot: requeſting my reader, if much ſhould be found of a trifling nature to pardon it, from a reflection, that the chief object of my travels is to be found in another part of the work, to which he may at once have recourſe, if he wiſh to attend only to ſubjects of a more important character.

JOURNAL.——May 15, 1787.

THE ſtreight that ſeparates England, ſo fortunately for her, from all the reſt of the world, muſt be croſſed many times before a traveller ceaſes to be ſurpriſed at the ſudden and univerſal change that ſurrounds him on landing at Calais. The ſcene, the people, the language, every object is new; and in thoſe circumſtances in which there is moſt reſemblance, a diſcriminating eye finds little difficulty in diſcovering marks of diſtinction.

The noble improvement of a ſalt marſh, worked by Monſ. Mouron of this town, occaſioned my acquaintance ſome time ago with that gentleman; and I had found him too well informed, upon various important objects, not to renew it with pleaſure. I ſpent an agreeable and inſtructive evening at his houſe.——165 miles.

The 17th. Nine hours rolling at anchor had ſo fatigued my mare, that I thought it neceſſary for her to reſt one day; but this morning I left Calais. For a few miles the country reſembles parts of Norfolk and Suffolk; gentle hills, with ſome incloſures around the houſes in the vales, and a diſtant range of wood. The country is the ſame to Boulogne. Towards that town, I was pleaſed to find many ſeats belonging to people who reſide there. How often are falſe ideas conceived from reading and report! I imagined that nobody but farmers and labourers in France lived in the country; and the firſt ride I take in that kingdom ſhews me many country ſeats. The road excellent.

Boulogne is not an ugly town; and from the ramparts of the upper part the view is beautiful, though low water in the river would not let me ſee it to advantage. It is well known that this place has long been the reſort of great numbers of perſons from England, whoſe misfortunes in trade, or extravagance in life, have made a reſidence abroad more agreeable than at home. It is eaſy to ſuppoſe that they here find a level of ſociety that tempts them to herd in the ſame place. Certainly it is not cheapneſs, for it is rather dear. The mixture of French and Engliſh women makes an odd appearance in the ſtreets; the latter are dreſſed in their own faſhion; but the French heads are all without hats, with cloſe caps, and the body covered with a long cloak that reaches to the feet. The town has the appearance of being flouriſhing: the buildings good, and in repair, with ſome modern ones; perhaps as ſure a teſt of proſperity as any other. They are raiſing alſo a new church, on a large and expenſive ſcale. The place on the whole is chearful, the environs pleaſing, and the ſea-ſhore is a flat ſtrand of firm ſand as far as the tide reaches. The high land adjoining is worth viewing by thoſe who have not already ſeen the petrification of clay; it is found in the ſtony and argilaceous ſtate, juſt as I deſcribed at Harwich. (*Annals of Agriculture*, vol. vi. p 218.)——24 miles.

The 18th. The view of Boulogne from the other ſide, at the diſtance of a mile is a pleaſing landſcape; the river meanders in the vale, and ſpreads in a fine reach under the town, juſt before it falls into the ſea, which opens between two high lands, one of which backs the town. The view wants only wood; for if the hills had more, fancy could ſcarcely paint a more agreeable ſcene. The country improves, more incloſed, and ſome parts ſtrongly reſembling England. Some fine meadows about Bonbrie, and ſeveral chateaus. I am not profeſſedly in this diary on huſbandry, but muſt juſt obſerve, that it is to the full as bad as the country is good; corn miſerable and yellow with weeds, yet all ſummer fallowed with loſt attention. On the hills, which are at no great diſtance from the ſea, the trees turn their heads from it, ſhorn of their foliage: it is not therefore to the S. W. alone that we ſhould attribute this effect. If the French have not huſbandry to ſhew us, they have roads; nothing can be more beautiful, or kept in

more garden order, if I may uſe the expreſſion, than that which paſſes through a fine wood of Monſ. Neuvillier's; and indeed for the whole way from Samer it is wonderfully formed: a vaſt cauſeway, with hills cut to level vales; which would fill me with admiration, if I had known nothing of the abominable *corvées*, that make me commiſerate the oppreſſed farmers, from whoſe extorted labour this magnificence has been wrung. Women gathering graſs and weeds by hand in the woods for their cows is a trait of poverty.

Paſs *turberries*, near Montreuil, like thoſe at Newbury. The walk round the ramparts of that town is pretty: the little gardens in the baſtions below are ſingular. The place has many Engliſh; for what purpoſe not eaſy to conceive, for it is unenlivened by thoſe circumſtances that render towns pleaſant. In a ſhort converſation with an Engliſh family returning home, the lady, who is young, and I conjecture agreeable, aſſured me I ſhould find the court of Verſailles amazingly ſplendid. Oh! how ſhe loved France!—and ſhould regret going to England if ſhe did not expect ſoon to return. As ſhe had croſſed the kingdom of France, I aſked her what part of it pleaſed her beſt; the anſwer was, ſuch as a pair of pretty lips would be ſure to utter, "Oh! Paris and Verſailles."

Her huſband, who is not ſo young, ſaid "Touraine." It is probable, that a farmer is much more likely to agree with the ſentiments of the huſband than of the lady, notwithſtanding her charms.——24 miles.

The 19th. Dined, or rather ſtarved at Bernay, where for the firſt time I met with that wine of whoſe ill fame I had heard ſo much in England, that of being worſe than ſmall beer. No ſcattered farm-houſe in this part of Picardy, all being collected in villages, which is as unfortunate for the beauty of a country, as it is inconvenient to its cultivation. To Abbeville, unpleaſant, nearly flat; and though there are many and great woods, yet they are unintereſting. Paſs the new chalk chateau of Monſ. St. Maritan, who, had he been in England, would not have built a houſe in that ſituation, nor have projected his walls like thoſe of an alms-houſe.

Abbeville is ſaid to contain 22,000 ſouls; it is old, and diſagreeably built; many of the houſes of wood, with a greater air of antiquity than I remember to have ſeen; their brethren in England have been long ago demoliſhed. Viewed the manufacture of Van Robais, which was eſtabliſhed by Louis XIV. and of which Voltaire and others have ſpoken ſo much. I had many enquiries concerning wool and woollens to make here; and, in converſation with the manufacturers, found them great politicians, condemning with violence the new commercial treaty with England.——30 miles.

The 21ſt. It is the ſame flat and unpleaſing country to Flixcourt.——15 miles.

The 22d. Poverty and poor crops to Amiens; women are now ploughing with a pair of horſes to ſow barley. The difference of the cuſtoms of the two nations is in nothing more ſtriking than in the labours of the ſex; in England, it is very little that they will do in the fields except to glean and to make hay; the firſt is a party of pilfering, and the ſecond of pleaſure: in France, they plough and fill the dung cart. Lombardy poplars ſeem to have been introduced here about the ſame time as in England.

Picquigny has been the ſcene of a remarkable tranſaction, that does great honour to the tolerating ſpirit of the French nation. Monſ. Colmar, a Jew, bought the ſeignory and eſtate, including the viſcounty of Amiens, of the Duke of Chaulnes, by virtue of which he appoints the canons of the cathedral of Amiens. The biſhop reſiſted his nomination, and it was carried by appeal to the parliament of Paris, whoſe decree was in favour of Monſ. Colmar. The immediate ſeignory of Picquigny, but without its dependancies, is ſold to the Count d'Artois.

At Amiens, view the cathedral, ſaid to be built by the Engliſh; it is very large, and beautifully light and decorated. They are fitting it up in black drapery, and a great canopy, with illuminations for the burial of the Prince de Tingry, colonel of the regiment of cavalry, whoſe ſtation is here. To view this was an object among the people, and crouds were at each door. I was refuſed entrance, but ſome officers being admitted, gave orders that an Engliſh gentleman without ſhould be let in, and I was called back from ſome diſtance and deſired very politely to enter, as they did not know at firſt that I was an Engliſhman. Theſe are but trifles, but they ſhew liberality, and it is fair to report them. If an Engliſhman receives attention in France, *becauſe he is an Engliſhman*, what return ought to be made to a Frenchman in England, is ſufficiently obvious. The chateau d'eau, or machine for ſupplying Amiens with water, is worth viewing; but plates only could give an idea of it. The town abounds with woollen manufactures. I converſed with ſeveral maſters, who united entirely with thoſe of Abbeville in condemning the treaty of commerce.——15 miles.

The 23d. To Bretuil the country is diverſified, woods every where in ſight the whole journey.——21 miles.

The 24th. A flat and unintereſting chalky country continues almoſt to Clermont; where it improves; is hilly and has wood. The view of the town, as ſoon as the dale is ſeen, with the Duke of Fitzjames's plantations, is pretty.——24 miles.

The 25th. The environs of Clermont are pictureſque. The hills about Liancourt are pretty; and ſpread with a ſort of cultivation I had never ſeen before, a mixture of vineyard (for here the vines firſt appear), garden and corn. A piece of wheat; a ſcrap of lucerne; a patch of clover or vetches; a bit of vines; with cherry, and other fruit-trees ſcattered among all, and the whole cultivated with the ſpade: it makes a pretty appearance, but muſt form a poor ſyſtem of trifling.

Chantilly!—magnificence is its reigning character; it is never loſt. There is not taſte or beauty enough to ſoften it into milder features: all but the chateau is great; and there is ſomething impoſing in that; except the gallery of the Great Conde's battle, and the cabinet of natural hiſtory which is rich in very fine ſpecimens, moſt advantageouſly arranged, it contains nothing that demands particular notice; nor is there one room which in England would be called large. The ſtable is truly great, and exceeds very much indeed any thing of the kind I had ever ſeen. It is five hundred and eighty feet long, and forty broad, and is ſometimes filled with two hundred and forty Engliſh horſes. I had been ſo accuſtomed to the imitation in water, of the waving and irregular lines of nature, that I came to Chantilly prepoſſeſſed againſt the idea of a canal; but the view of one here is ſtriking, and had the effect which magnificent ſcenes impreſs. It ariſes from extent, and from the right lines of the water uniting with the regularity of the objects in view. It is Lord Kaimes, I think, who ſays, that the part of the garden contiguous to the houſe ſhould partake of the regularity of the building; with much magnificence about a place, this is almoſt unavoidable. The effect here, however, is leſſened by the parterre before the caſtle, in which the diviſions and the diminutive jets-d'eau are not of a ſize to correſpond with the magnificence of the canal. The menagerie is very pretty, and exibits a prodigious variety of domeſtic poultry, from all parts of the world; one of the beſt objects to which a menagerie can be applied; theſe, and the Corſican ſtag, had all my attention. The hameau contains an imitation of an Engliſh garden; the taſte is but juſt introduced into France, ſo that it will not ſtand a critical examination. The moſt Engliſh idea I ſaw is the lawn in front of the ſtables; it is large, of a good verdure, and well

kept; proving clearly that they may have as fine lawns in the north of France as in England. The labyrinth is the only complete one I have ſeen, and I have no inclination to ſee another: it is in gardening what a rebus is in poetry. In the Sylvae are many very fine and ſcarce plants. I wiſh thoſe perſons who view Chantilly, and are fond of fine trees, would not forget to aſk for the great beech; this is the fineſt I ever ſaw; ſtrait as an arrow, and, as I gueſs, not leſs than eighty or ninety feet high; forty feet to the firſt branch; and twelve feet diameter at five from the ground. It is in all reſpects one of the fineſt trees that can any where be met with. Two others are near it, but not equal to this ſuperb one. The foreſt around Chantilly, belonging to the Prince of Condé, is immenſe, ſpreading far and wide; the Paris road croſſes it for ten miles, which is its leaſt extent. They ſay the capitainerie, or paramount-ſhip, is above one hundred miles in circumference. That is to ſay, all the inhabitants for that extent are peſtered with game, without permiſſion to deſtroy it, in order to give one man diverſion. Ought not theſe capitaineries to be extirpated?

At Luzarch, I found that my mare, from illneſs, would travel no further; French ſtables, which are covered dung-hills, and the careleſſneſs of *garçons d'ecuries*, an execrable ſet of vermin, had given her cold. I therefore left her to ſend for from Paris, and went thither poſt; by which experiment I found that poſting in France is much worſe, and even, upon the whole, dearer than in England. Being in a poſt-chaiſe I travelled to Paris, as other travellers in poſt-chaiſes do, that is to ſay, knowing little or nothing. The laſt ten miles I was eagerly on the watch for that throng of carriages which near London impede the traveller. I watched in vain; for the road, quite to the gates, is, on compariſon, a perfect deſert. So many great roads join here, that I ſuppoſe this muſt be accidental. The entrance has nothing magnificent; ill built and dirty. To get to the Rue de Varenne Fauxbourgh St. Germain, I had the whole city to croſs, and paſſed it by narrow, ugly, and crouded ſtreets.

At the hotel de la Rochefoucauld I found the Duke of Liancourt and his ſons, the Count de la Rochefoucald, and the Count Alexander, with my excellent friend Monſieur de Lazowſki, all of whom I had the pleaſure of knowing in Suffolk. They introduced me to the Ducheſs D'Eſtiſſac, mother of the Duke of Liancourt, and to the Ducheſs of Liancourt. The agreeable reception and friendly attentions I met with from all this liberal family were well calculated to give me the moſt favourable impreſſion * * * * *.——42 miles.

The 26th. So ſhort a time had I paſſed before in France, that the ſcene is totally new to me. Till we have been accuſtomed to travelling, we have a propenſity to ſtare at and admire every thing—and to be on ſearch for novelty, even in circumſtances in which it is ridiculous to look for it. I have been upon the full ſilly gape to find out things that I had not found before, as if a ſtreet in Paris could be compoſed of any thing but houſes, or houſes formed of any thing but brick or ſtone—or that the people in them, not being Engliſh, would be walking on their heads. I ſhall ſhake off this folly as faſt as I can, and bend my attention to mark the character and diſpoſition of the nation. Such views naturally lead us to catch the little circumſtances which ſometimes expreſs them; not an eaſy taſk, but ſubject to many errors.

I have only one day to paſs at Paris, and that is taken up with buying neceſſaries. At Calais my abundant care produced the inconvenience it was meant to avoid; I was afraid of loſing my trunk, by leaving it at Deſſein's for the diligence; ſo I ſent it to M. Mouron's.—The conſequence is, that it is not to be found at Paris, and its contents are to be bought again before I can leave this city on our journey to the Pyrenees. I believe it may be received as a maxim, that a traveller ſhould always truſt his

his baggage to the common voitures of the country, without any extraordinary precautions.

After a rapid excurſion, with my friend Lazowſki, to ſee many things, but too haſtily to form any correct idea, ſpent the evening at his brother's, where I had the pleaſure of meeting Monſ. de Brouſſonet, ſecretary to the royal ſociety of agriculture, and Monſ. Deſmaret, both of the academy of ſciences. As Monſieur Lazowſki is well informed in the manufactures of France, in the police of which he enjoys a poſt of conſideration, and as the other gentlemen have paid much attention to agriculture, the converſation was in no ſlight degree inſtructive, and I regretted that a very early departure from Paris would not let me promiſe myſelf a further enjoyment ſo congenial with my feelings, as the company of men, whoſe converſation ſhewed a marked attention to objects of national importance. On the breaking up of the party, went with Count Alexander de la Rochefoucauld poſt to Verſailles, to be preſent at the fête of the day following (Whitſunday). Slept at the Duke de Liancourt's hotel.

The 27th. Breakfaſted with him at his apartments in the palace, which are annexed to his office of grand maſter of the wardrobe, one of the principal in the court of France.—Here I found the duke ſurrounded by a circle of noblemen, among whom was the Duke de la Rochefoucauld, well known for his attention to natural hiſtory; I was introduced to him, as he is going to Bagnere de Luchon in the Pyrenees, where I am to have the honour of being in his party.

The ceremony of the day was, the king's inveſting the Duke of Berri, ſon of the Count D'Artois, with the *cordon blue*. The queen's band was in the chapel where the ceremony was performed, but the muſical effect was thin and weak. During the ſervice the king was ſeated between his two brothers, and ſeemed by his carriage and inattention to wiſh himſelf a hunting. He would certainly have been as well employed as in hearing afterwards from his throne a feudal oath of chivalry, I ſuppoſe, or ſome ſuch nonſenſe, adminiſtered to a boy of ten years old. Seeing ſo much pompous folly I imagined it was the dauphin, and aſked a lady of faſhion near me; at which ſhe laughed in my face, as if I had been guilty of the moſt egregious idiotiſm: nothing could be done in a worſe manner; for the ſtifling of her expreſſion only marked it the more. I applied to Monſ. de la Rochefoucauld to learn what groſs abſurdity I had been guilty of ſo unwittingly; when, forſooth, it was becauſe dauphin, as all the world knows in France, has the *cordon blue* put around him as ſoon as he is born. So unpardonable was it for a foreigner to be ignorant of ſuch an important part of French hiſtory, as that of giving a babe a blue ſlobbering bib inſtead of a white one!

After this ceremony was finiſhed, the king and the knights walked in a ſort of proceſſion to a ſmall apartment in which he dined, ſaluting the queen as they paſſed.

There appeared to be more eaſe and familiarity than form in this part of the ceremony; her majeſty, who, by the way, is the moſt beautiful woman I ſaw to-day, received them with a variety of expreſſion. On ſome ſhe ſmiled; to others ſhe talked; a few ſeemed to have the honour of being more in her intimacy. Her return to ſome was formal, and to others diſtant. To the gallant Suffrein it was reſpectful and benign. The ceremony of the king's dining in public is more odd than ſplendid. The queen ſat by him with a cover before her, but ate nothing; converſing with the duke of Orleans, and the Duke of Liancourt, who ſtood behind her chair. To me it would have been a moſt uncomfortable meal, and were I a ſovereign, I would ſweep away three-fourths of theſe ſtupid forms; if kings do not dine like other people, they loſe much of the pleaſure of life; their ſtation is very well calculated to deprive them of much, and they ſubmit to nonſenſical cuſtoms, the ſole tendency of which is to leſſen the

the remainder. The only comfortable or amuſing dinner is a table of ten or twelve covers for the people whom they like; travellers tell us that this was the mode of the late King of Pruſſia, who knew the value of life too well to ſacrifice it to empty forms on one hand, or to a monaſtic reſerve on the other.

The palace of Verſailles, one of the objects of which report had given me the greateſt expectation, is not in the leaſt ſtriking: I view it without emotion: the impreſſion it makes is nothing. What can compenſate the want of unity? From whatever point viewed, it appears an aſſemblage of buildings; a ſplendid quarter of a town, but not a fine edifice; an objection from which the garden front is not free, though by far the moſt beautiful.—The great gallery is the fineſt room I have ſeen; the other apartments are nothing; but the pictures and ſtatues are well known to be a capital collection. The whole palace, except the chapel, ſeems to be open to all the world; we puſhed through an amazing croud of all ſorts of people to ſee the proceſſion, many of them not very well dreſſed, whence it appears, that no queſtions are aſked. But the officers at the door of the apartment in which the king dined, made a diſtinction, and would not permit all to enter promiſcuouſly.

Travellers ſpeak much, even very late ones, of the remarkable intereſt the French take in all that perſonally concerns their king, ſhewing by the eagerneſs of their attention not curioſity only, but love. Where, how, and in whom thoſe gentlemen diſcovered this I know not.—It is either miſrepreſentation, or the people are changed in a few years more than is credible. Dine at Paris, and in the evening the Ducheſs of Liancourt, who ſeems to be one of the beſt of women, carried me to the opera at St. Cloud, where alſo we viewed the palace which the queen is building; it is large, but there is much in the front that does not pleaſe me.——20 miles.

The 28th. Finding my mare ſufficiently recovered for a journey, a point of importance to a traveller ſo weak in cavalry as myſelf, I left Paris, accompanying the Count de la Rochefoucauld and my friend Lazowſki, and commencing a journey that is to croſs the whole kingdom to the Pyrenees. The road to Orleans is one of the greateſt that leads from Paris; I expected, therefore, to have my former impreſſion of the little traffic near that city removed; but on the contrary it was confirmed; it is a deſert compared with thoſe around London. In ten miles we met not one ſtage or diligence; only two meſſageries, and very few chaiſes; not a tenth of what would have been met had we been leaving London at the ſame hour. Knowing how great, rich, and important a city Paris is, this circumſtance perplexes me much. Should it afterwards be confirmed, concluſions in abundance are to be drawn.

For a few miles, the ſcene is every where ſcattered with the ſhafts of quarries, the ſtone drawn up by lanthorn wheels of a great diameter. The country diverſified; and its greateſt want to pleaſe the eye is a river; woods generally in view; the proportion of the French territory covered by this production for want of coals, muſt be prodigious, for it has been the ſame all the way from Calais. At Arpajon, the Maréchal Duke de Mouchy has a ſmall houſe, which has nothing to recommend it.——20 miles.

The 29th. To Eſtamps is partly through a flat country, the beginning of the famous Pays de Beauce. To Toury, flat and diſagreeable, only two or three gentlemen's ſeats in ſight.——31 miles.

The 30th. One univerſal flat, unincloſed, unintereſting, and even tedious, though ſmall towns and villages are every where in ſight; the features that might compound a landſcape are not brought together. This Pays de Beauce contains, by reputation, the cream of French huſhandry; the ſoil excellent; but the management all fallow.

Paſs

Paſs through part of the foreſt of Orleans belonging to the duke of that name; it is one of the largeſt in France.

From the ſteeple of the cathedral at Orleans, the proſpect is very fine. The town large, and its ſuburbs, of ſingle ſtreets, extend near a league. The vaſt range of country, that ſpreads on every ſide, is an unbounded plain, through which the magnificent Loire bends his ſtately way, in ſight for fourteen leagues; the whole ſcattered with rich meadows, vineyards, gardens, and foreſts. The population muſt be very great; for, beſide the city, which contains near forty thouſand people, the number of ſmaller towns and villages ſtrewed thickly over the plain is ſuch as to render the whole ſcene animated. The cathedral, from which we had this noble proſpect, is a fine building, the choir raiſed by Henry IV. The new church is a pleaſing edifice; the bridge a noble ſtructure of ſtone, and the firſt experiment of the flat arch made in France, where it is now ſo faſhionable. It contains nine, and is four hundred and ten feet long, and forty-five wide. To hear ſome Engliſhmen talk, one would ſuppoſe there was not a fine bridge in all France; not the firſt, nor the laſt error I hope that travelling will remove. There are many barges and boats at the quay, built upon the river in the Bourbonnois, &c. loaded with wood, brandy, wine, and other goods; on arriving at Nantes, the veſſels are broken up and ſold with the cargo. Great numbers built with ſpruce fir. A boat goes from hence to that city, when demanded by ſix paſſengers, each paying a louis-d'or: they lie on ſhore every night, and reach Nantes in four days and an half. The principal ſtreet leading to the bridge is a fine one all buſy and alive, for the trade is briſk here. Admire the fine acacias ſcattered about the town.——20 miles.

The 31ſt. On leaving it, enter ſoon the miſerable province of Sologne, which the French writers call the triſte Sologne. Through all this country they have had ſevere ſpring froſts, for the leaves of the walnuts are black and cut off. I ſhould not have expected this unequivocal mark of a bad climate after paſſing the Loire. To La Ferté Lowendahl, a dead flat of hungry ſand gravel, with much heath. The poor people, who cultivate the ſoil here, are metayers, that is, men who hire the land without ability to ſtock it; the proprietor is forced to provide cattle and ſeed, and he and his tenant divide the produce; a miſerable ſyſtem, that perpetuates poverty and excludes inſtruction. At La Ferté is a handſome chateau of the Marquis de Coix, with ſeveral canals, and a great command of water. To Nonant-le-Fuzelier, a ſtrange mixture of ſand and water. Much incloſed, and the houſes and cottages of wood filled between the ſtuds with clay or bricks, and covered not with ſlate but tile, with ſome barns boarded like thoſe in Suffolk—rows of pollards in ſome of the hedges; an excellent road of ſand; the general features of a woodland country; all combined to give a ſtrong reſemblance to many parts of England; but the huſbandry is ſo little like that of England, that the leaſt attention to it deſtroyed every notion of ſimilarity.——27 miles.

JUNE 1. The ſame wretched country continues to La Loge; the fields are ſcenes of pitiable management, as the houſes are of miſery. Yet all this country highly improveable, if they knew what to do with it: the property, perhaps, of ſome of theſe glittering beings, who figured in the proceſſion the other day at Verſailles. Heaven grant me patience while I ſee a country thus neglected—and forgive me the oaths I ſwear at the abſence and ignorance of the poſſeſſors.—Enter the generality of Bourges, and ſoon after a foreſt of oak belonging to the Count d'Artois; the trees are dying at top, before they attain any ſize. There the miſerable Sologne ends; the firſt view of Verſon and its

its vicinity is fine. A noble vale ſpreads at your feet, through which the river Cheere leads, ſeen in ſeveral places to the diſtance of ſome leagues; a bright ſun burniſhed the water, like a ſtring of lakes amidſt the ſhade of a vaſt woodland. See Bourges to the left.——18 miles.

The 2d. Paſs the rivers Cheere and Lave; the bridges well built; the ſtream fine, and with the wood, buildings, boats, and adjoining hills, form an animated ſcene. Several new houſes, and buildings of good ſtone in Verſon; the place appears thriving, and doubtleſs owes much to the navigation. We are now in Berri, a province governed by a provincial aſſembly, conſequently the roads good, and made without corvées. Vatan is a little town that ſubſiſts chiefly by ſpinning. We drank there excellent Sancere wine, of a deep colour, rich flavour, and good body, 20s. the bottle; but in the country ten. An extenſive proſpect before we arrived at Chateauroux where we viewed the manufactures.——40 miles.

The 3d. Within about three miles of Argenton come upon a fine ſcene, beautiful, yet with bold features; a narrow vale bounded on every ſide with hills, covered with wood, all of which are immediately under the eye, without a level acre, except the bottom of the vale, through which a river flows, by an old caſtle picturesquely ſituated to the right; and to the left, a tower riſing out of a wood.

At Argenton, walk up a rock that hangs almoſt over the town. It is a delicious ſcene. A natural ledge of perpendicular rock puſhes forward abruptly over the vale, which is half a mile broad, and two or three long: at one end cloſed by hills, and at the other filled by the town with vineyards riſing above it; the ſurrounding ſcene that hems in the vale is high enough for relief; vineyards, rocks or hills covered with wood. The vale cut into incloſures of a lovely verdure, and a fine river winds through it, with an outline that leaves nothing to wiſh. The venerable fragments of a caſtle's ruins, near the point of view, are well adapted to awaken reflections on the triumph of the arts of peace over the barbarous ravages of the feudal ages, when every claſs of ſociety was involved in commotion, and the lower ranks were worſe ſlaves than at preſent.

The general face of the country, from Verſon to Argenton, is an unintereſting flat with many heaths of ling. No appearance of population, and even towns are thin. The huſbandry poor and miſerable. By the circumſtances to which I could give attention I conceive them to be honeſt and induſtrious; they ſeem clean; are civil, and have good countenances. They appear to me as if they would improve their country, if they formed the part of a ſyſtem, the principles of which tended to national proſperity.——18 miles.

The 4th. Paſs an incloſed country, which would have a better appearance if the oaks had not loſt their foliage by inſects, whoſe webs hang over the buds. They are but now coming into leaf again. Croſs a ſtream which ſeparates Berri from La Marche; cheſnuts appear at the ſame time; they are ſpread over all the fields, and yield the food of the poor. A variety of hill and dale, with fine woods, but little ſigns of population. Lizards for the firſt time alſo. There ſeems a connection relative to climate between the cheſnuts and theſe harmleſs animals. They are very numerous, and ſome of them near a foot long. Sleep at La Ville au Brun.——24 miles.

The 5th. The country improves in beauty greatly; paſs a vale, where a cauſeway ſtops the water of a ſmall rivulet and ſwells it into a lake, that forms one feature of a delicious ſcene. The indented outlines and the ſwells margined with wood are beautiful; the hills on every ſide in uniſon; one now covered with ling the prophetic eye of taſte

may imagine lawn. Nothing is wanted to render the ſcene a garden, but to clear away rubbiſh.

The general face of the country, for 16 miles, by far the moſt beautiful I have ſeen in France; it is thickly incloſed, and full of wood; the umbrageous foliage of the cheſnuts gives the ſame beautiful verdure to the hills, as watered meadows (ſeen for the firſt time to day) to the vales. Diſtant mountainous ridges form the back ground, and make the whole intereſting. The declivity of country, as we go down to Baſſies, offers a beautiful view; and the approach to the town preſents a landſcape fancifully grouped of rock, and wood, and water. To Limoge, paſs another artificial lake between cultivated ills; beyond are wilder heights, but mixed with pleaſant vales; ſtill another lake more beautiful than the former, with a fine accompaniment of wood; acroſs a mountain of cheſnut copſe, which commands a ſcene of a character different from any I have viewed either in France or England, a great range of hill and dale all covered with foreſt, and bounded by diſtant mountains. Not a veſtige of any human reſidence; no village; no houſe or hut, no ſmoke to raiſe the idea of a peopled country; an American ſcene; wild enough for the tomohawk of the ſavage. Stop at an execrable auberge, called Maiſon Rouge, where we intended to ſleep; but, on examination, found every appearance ſo forbidding, and ſo beggarly an account of a larder, that we paſſed on to Limoge. The roads through all this country are truly noble, far beyond any thing I have ſeen in France or elſewhere.——44 miles.

The 6th. View Limoge, and examine its manufactures. It was certainly a Roman ſtation, and ſome traces of its antiquity are ſtill remaining. It is ill built, with narrow and crooked ſtreets, the houſes high and diſagreeable. They are raiſed of granite, or wood with lath and plaiſter, which ſaves lime, an expenſive article here, being brought from a diſtance of twelve leagues; the roofs are of pantiles, with projecting eaves, and almoſt flat; a ſure proof we have quitted the region of heavy ſnows. The beſt of their public works is a noble fountain, the water conducted three quarters of a league by an arched aqueduct, brought under the bed of a rock 60 feet deep to the higheſt ſpot in the town, where it falls into a baſon fifteen feet diameter, cut out of one piece of granite; thence the water is let into reſervoirs, cloſed by ſluices, which are opened for watering the ſtreets, or in caſe of fires.

The cathedral is ancient, and the roof of ſtone; there are ſome arabeſque ornaments cut in ſtone, as light, airy, and elegant as any modern houſe can boaſt, whoſe decorations are in the ſame taſte.

The preſent biſhop has erected a large and handſome palace, and his garden is the fineſt object to be ſeen at Limoge, for it commands a landſcape hardly to be equalled for beauty: it would be idle to give any other deſcription than juſt enough to induce travellers to view it. A river winds through a vale, ſurrounded by hills that preſent the gayeſt and moſt animated aſſemblage of villas, farms, vines, hanging meadows, and cheſnuts blended ſo fortunately as to compoſe a ſcene truly ſmiling. This biſhop is a friend of the Count de la Rochefoucauld's family; he invited us to dine, and gave us a very handſome entertainment. Lord Macartney, when a priſoner in France, after the Grenades were taken, ſpent ſome time with him; there was an inſtance of French politeneſs ſhewn to his lordſhip, that marks the urbanity of this people. The order came from court to ſing Te Deum on the very day that Lord Macartney was to arrive. Conceiving that the public demonſtrations of joy for a victory that brought his noble gueſt a priſoner, might be perſonally unpleaſant to him, the biſhop propoſed to the intendant to poſtpone the ceremony for a few days, in order that he might not meet it ſo abruptly;

this

this was inſtantly acceded to, and conducted in ſuch a manner afterwards as to mark as much attention to Lord Macartney's feelings as to their own. The biſhop told me, that Lord Macartney ſpoke French better than he could have conceived poſſible for a foreigner, had he not heard him; better than many well educated Frenchmen.

The poſt of intendant here was rendered celebrated by being filled by that friend of mankind, Turgot, whoſe well earned reputation in this province placed him at the head of the French finances, as may be very agreeably learned, in that production of equal truth and elegance, his life by the Marquis of Condorcet. The character which Turgot left here is conſiderable. The noble roads we have paſſed, ſo much exceeding any other I have ſeen in France, were amongſt his good works; an epithet due to them becauſe not made by *corvées*. There is here a ſociety of agriculture, which owes its origin to the ſame diſtinguiſhed patriot: but in that moſt unlucky path of French exertion he was able to do nothing: evils too radically fixed were in the way of the attempt. This ſociety does like other ſocieties,—they meet, converſe, offer premiums, and publiſh nonſenſe. This is not of much conſequence, for the people, inſtead of reading their memoirs, are not able to read at all. They can however *ſee;* and if a farm was eſtabliſhed in that good cultivation which they ought to copy, ſomething would be preſented from which they *might* learn. I aſked particularly if the members of this ſociety had land in their own hands, from which it might be judged if they knew any thing of the matter themſelves: I was aſſured that they had; but the converſation preſently explained it: they had *metayers* around their country ſeats, and this was conſidered as farming their own lands, ſo that they aſſume ſomething of a merit from the identical circumſtance, which is the curſe and ruin of the whole country. In the agricultural converſations we had on the journey from Orleans, I have not found one perſon who ſeemed ſenſible of the miſchief of this ſyſtem.

The 7th. No cheſnuts for a league before we reach Biere Buffiere, they ſay becauſe the baſis of the country is a hard granite; and they aſſert alſo at Limoge, that in this granite there grow neither vines, wheat, nor cheſnuts, but that on the ſofter granites theſe plants thrive well: it is true, that cheſnuts and this granite appeared together when we entered Limoſin. The road has been incomparably fine, and much more like the well kept alleys of a garden than a common high-way. See for the firſt time old towers, that appear numerous in this country.——33 miles.

The 8th. Paſs an extraordinary ſpectacle for Engliſh eyes, of many houſes too good to be called cottages, without any glaſs windows. Some miles to the right is Pompadour, where the king has a ſtud; there are all kinds of horſes, but chiefly Arabian, Turkiſh, and Engliſh. Three years ago four Arabians were imported, which had been procured at the expence of 72,000 livres (3149l.) the price of covering a mare is only three livres to the groom; the owners are permitted to ſell their colts as they pleaſe, but if theſe come up to the ſtandard height, the king's officers have the preference, provided they give the price offered by others. Theſe horſes are not ſaddled till ſix years old. They paſture all day, but at night are confined on account of wolves, which are ſo common as to be a great plague to the people. A horſe of ſix years old, a little more than four feet ſix inches high, is ſold for 7cl.; and 15l. has been offered for a colt of one year old. Paſs Uzarch; dine at Douzenac; between which place and Brive meet the firſt maize, or Indian corn.

The beauty of the country, through the thirty-four miles from St. George to Brive, is ſo various, and in every reſpect ſo ſtriking and intereſting, that I ſhall attempt no particular deſcription, but obſerve in general, that I am much in doubt, whether there be any thing comparable to it either in England or Ireland. It is not that a fine view breaks

now and then upon the eye to compenſate the traveller for the dullneſs of a much longer diſtrict; but a quick ſucceſſion of landſcapes, many of which would be rendered famous in England, by the reſort of travellers to view them. The country is all hill or valley; the hills are very high, and would be called with us mountains, if waſte and covered with heath; but being cultivated to the very tops, their magnitude is leſſened to the eye. Their forms are various: they ſwell in beautiful ſemi-globes: they project in abrupt maſſes, which incloſe deep glens: they expand into amphitheatres of cultivation that riſe in gradation to the eye: in ſome places toſſed into a thouſand inequalities of ſurface; in others the eye repoſes on ſcenes of the ſofteſt verdure. Add to this the rich robe, with which nature's bounteous hand has dreſſed the ſlopes, with hanging woods of cheſnut. And whether the vales open their verdant boſoms, and admit the ſun to illuminate the rivers in their comparative repoſe; or whether they be cloſed in deep glens, that afford a paſſage with difficulty to the water rolling over their rocky beds, and dazzling the eye with the luſtre of caſcades; in every caſe the features are intereſting and characteriſtic of the ſcenery. Some views of ſingular beauty rivetted us to the ſpots; that of the town of Uzarch, covering a conical hill, riſing in the hollow of an amphitheatre of wood, and ſurrounded at its feet by a noble river, is unique. Derry in Ireland has ſomething of its form, but wants ſome of its richeſt features. The water-ſcenes from the town itſelf, and immediately after paſſing it, are delicious. The immenſe view from the deſcent to Douzenach is equally magnificent. To all this is added the fineſt road in the world, every where formed in the perfect manner, and kept in the higheſt preſervation, like the well ordered alley of a garden, without duſt, ſand, ſtones, or inequality, firm and level, of pounded granite, and traced with ſuch a perpetual command of proſpect, that had the engineer no other object in view, he could not have executed it with a more finiſhed taſte.

The view of Brive, from the hill, is ſo fine, that it gives the expectation of a beautiful little town, and the gaiety of the environs encourages the idea; but, on entering, ſuch a contraſt is found as diſguſts completely. Cloſe, ill built, crooked, dirty, ſtinking ſtreets, exclude the ſun, and almoſt the air, from every habitation, except a few tolerable ones on the promenade.——34 miles.

The 9th. Enter a different country, with the new province of Quercy, which is a part of Guienne; not near ſo beautiful as Limoſin, but, to make amends, it is far better cultivated. Thanks to maize, which does wonders! Paſs Noailles, on the ſummit of a high hill, the chateau of the Marſhal Duke of that name. Enter a calcareous country, and loſe cheſnuts at the ſame time.

In going down to Souillac, there is a proſpect that muſt univerſally pleaſe: it is a bird's-eye view of a delicious little valley, ſunk deep amongſt ſome very bold hills that incloſe it; a margin of wild mountain contraſts the extreme beauty of the level ſurface below, a ſcene of cultivation ſcattered with fine walnut trees; nothing can apparently exceed the exuberant fertility of this ſpot.

Souillac is a little town in a thriving ſtate, having ſome rich merchants. They receive ſtaves from the mountains of Auvergne by their river Dordonne, which is navigable eight months in the year; theſe they export to Bourdeaux and Libourn; alſo wine, corn, and cattle, and import ſalt in great quantities. It is not in the power of an Engliſh imagination to figure the animals that waited upon us here, at the Chapeau Rouge. Some things that called themſelves by the courteſy of Souillac women, but in reality walking dunghills.—But a neatly dreſſed clean waiting girl at an inn will be looked for in vain in France.—34 miles.

The 10th. Croſs the Dordonne by a ferry; the boat well contrived for driving in at one end and out at the other, without the abominable operation, common in Eng-

land, of beating horſes till they leap into them; the price is as great a contraſt as the excellence; we paid for an Engliſh whiſky, a French cabriolet, one ſaddle-horſe, and ſix perſons, no more than 5os. (2s. 1d.) I have paid half-a-crown a wheel in England for execrable ferries, paſſed over at the hazard of the horſe's limbs.—This river runs in a very deep valley between two ridges of high hills: extenſive views, all ſcattered with villages and ſingle houſes; an appearance of great population. Cheſnuts on a calcareous ſoil, contrary to the Limoſin maxim.

Paſs Peyrac, and meet many beggars, which we had not done before. All the country girls and women are without ſhoes or ſtockings; and the ploughmen at their work have neither ſabots nor feet to their ſtockings. This is a poverty that ſtrikes at the root of national proſperity; a large conſumption among the poor being of more conſequence than among the rich: the wealth of a nation lies in its circulation and conſumption; and the caſe of poor people abſtaining from the uſe of manufactures of leather and wool ought to be conſidered as an evil of the firſt magnitude. It reminded me of the miſery of Ireland. Paſs Pont-de-Rodez, and come to high land, whence an immenſe and ſingular proſpect of ridges, hills, vales, and gentle ſlopes, riſing one beyond another in every direction, with few maſſes of wood, but many ſcattered trees. At leaſt forty miles are tolerably diſtinct to the eye, and without a level acre; the ſun on the point of ſetting, illuminated part of it, and diſplayed a vaſt number of villages and ſcattered farms. The mountains of Auvergne, at the diſtance of a hundred miles, added to the view. Paſs by ſeveral cottages, exceedingly well built, of ſtone and ſlate, or tiles, yet without any glaſs to the windows; can a country be like to thrive where the great object is to ſpare manufactures? Women picking weeds into their aprons for their cows, another ſign of poverty I obſerved, during the whole way from Calais. ——30 miles.

The 11th. See for the firſt time the Pyrenees, at the diſtance of one hundred and fifty miles.—To me, who had never ſeen an object farther than ſixty or ſeventy, I mean the Wicklow mountains, as I was going out of Holyhead, this was intereſting. Wherever the eye wandered in ſearch of new objects it was ſure to reſt there. Their magnitude, their ſnowy height, the line of ſeparation between two great kingdoms, and the end of our travels altogether accounts for this effect. Towards Cahors the country changes, and has ſomething of a ſavage aſpect; yet houſes are ſeen every where, and one-third of it under vines.

That town is bad; the ſtreets neither wide nor ſtrait, but the new road is an improvement. The chief object of its trade and reſource are vines and brandies. The true Vin de Cahors, which has a great reputation, is the produce of a range of vineyards, very rocky, on a ridge of hills full to the ſouth, and is called Vin de Grave, becauſe growing on a gravelly ſoil. In plentiful years, the price of good wine here does not exceed that of the caſk; laſt year it was ſold at 10s. 6d. a barique, or 8d. a dozen. We drank it at the Trois Rois from three to ten years old, the latter at 3os. (1s. 3d.) the bottle; both excellent, full bodied, great ſpirit, without being fiery, and to my palate much better than our ports. I liked it ſo well, that I eſtabliſhed a correſpondence with Monſ. Andonry, the inn-keeper *. The heat of this country is equal to the production of ſtrong wine. This was the moſt burning day we had experienced.

On leaving Cahors, the mountain of rock riſes ſo immediately, that it ſeems as if it would tumble into the town. The leaves of walnuts are now black with froſts that

* I ſince had a barique of him; but whether he ſent bad wine, which I am not willing to believe, or that it came through bad hands, I know not. It is however ſo bad, as to be item for folly.

hap-

happened within a fortnight. On enquiry, I found they are ſubject to theſe froſts all through the ſpring months; and though rye is ſometimes killed by them, the mildew in wheat is hardly known;—a fact ſufficiently deſtructive of the theory of froſts being the cauſe of that diſtemper. It is very rare that any ſnow falls here. Sleep at Ventillac. ——22 miles.

The 12th. The ſhape and colour of the peaſants' houſes here add a beauty to the country; they are ſquare, white, and with rather flat roofs, but few windows. The peaſants are for the moſt part land-proprietors. Immenſe view of the Pyrenees before us, of an extent and height truly ſublime: near Perges, a rich vale, that ſeems to reach uninterruptedly to thoſe mountains, is a glorious ſcenery: one vaſt ſheet of cultivation; every where chequered with thoſe well built white houſes;—the eye loſing itſelf in the vapour, which ends only with that ſtupendous ridge, whoſe ſnow-capped heads are broken into the boldeſt outline. The road to Cauſſade leads through a very fine avenue of ſix rows of trees, two of them mulberries, which are the firſt we have ſeen. Thus we have travelled almoſt to the Pyrenees before we met with an article of culture which ſome want to introduce into England. The vale here is all on a dead level; the road finely made, and mended with gravel. Montauban is old, but not ill built. There are many good houſes, without forming handſome ſtreets. It is ſaid to be very populous, and the eye confirms the intelligence. The cathedral is modern, and pretty well built, but too heavy. The public college, the ſeminary, the biſhop's palace, and the houſe of the firſt preſident of the court of aids are good buildings; the laſt large, with a moſt ſhewy entrance. The promenade is finely ſituated; built on the higheſt part of the rampart, and commanding that noble vale, or rather plain, one of the richeſt in Europe, which extends on one ſide to the ſea, and in the front to the Pyrenees; whoſe towering maſſes, heaped one upon another, in a ſtupendous manner, and covered with ſnow, offer a variety of lights and ſhades from indented forms, and the immenſity of their projections. This proſpect, which contains a ſemicircle of an hundred miles diameter, has an oceanic vaſtneſs, in which the eye loſes itſelf; an almoſt boundleſs ſcene of cultivation; an animated, but confuſed maſs of infinitely varied parts—melting gradually into the diſtant obſcure, from which emerges the amazing frame of the Pyrenees, rearing their ſilvered heads far above the clouds. At Montauban, I met Captain Plampin, of the royal navy; he was with Major Crew, who has a houſe and family here, to which he politely carried us; it is ſweetly ſituated on the ſkirts of the town, commanding a fine view; they were ſo obliging as to reſolve my enquiries upon ſome points, of which a reſidence made them complete judges. Living is reckoned cheap here; a family was named to us, whoſe income was ſuppoſed to be about fifteen hundred louis a-year, and who lived as handſomely as in England on 5000l. The comparative dearneſs and cheapneſs of different countries is a ſubject of conſiderable importance, but difficult to analize. As I conceive the Engliſh to have made far greater advances in the uſeful arts, and in manufactures, than the French have done, England ought to be the cheaper country. What we meet with in France, is a cheap mode of living, which is quite another conſideration.——30 miles.

The 13th. Paſs Griſolles, where are well built cottages without glaſs, and ſome with no other light than the door. Dine at Pompinion, at the Grand Soleil, an uncommonly good inn, where Captain Plampin, who accompanied us thus far, took his leave. Here we had a violent ſtorm of thunder and lightning, with rain much heavier I thought than I had known in England; but, when we ſet out for Tolouze, I was immediately convinced that ſuch a violent ſhower had never fallen in that king-

dom; for the deſtruction it had poured on the noble ſcene of cultivation, which but a moment before was ſmiling with exurberance, was terrible to behold. All now one ſcene of diſtreſs: the fineſt crops of wheat beaten ſo flat to the ground, that I queſtion whether they can ever riſe again; other fields ſo inundated, that we were actually in doubt whether we were looking on what was lately land, or always water. The ditches had been filled rapidly with mud, had overflowed the road, and ſwept dirt and gravel over the crops.

Croſs one of the fineſt plains of wheat that is any where to be ſeen; the ſtorm, therefore, was fortunately partial. Paſs St. Jorry; a noble road, but not better than in Limoſin. It is a deſert to the very gates of Tolouze; meet not more perſons than if it were a hundred miles from any town.——31 miles.

The 14th. View the city, which is very ancient and very large, but not peopled in proportion to its ſize: the buildings are a mixture of brick and wood, and have conſequently a melancholy appearance. This place has always prided itſelf on its taſte for literature and the fine arts. It has had a univerſity ſince 1215: and it pretends that its famous academy of Jeus Floraux is as old as 1323. It has alſo a royal academy of ſciences, another of painting, ſculpture, and architecture. The church of the Cordelliers has vaults, into which we deſcended, that have the property of preſerving dead bodies from corruption; we ſaw many that they aſſert to be five hundred years old. If I had a vault well lighted, that would preſerve the countenance and phyſiognomy as well as the fleſh and bones, I ſhould like to have it peopled with all my anceſtors; and this deſire would, I ſuppoſe be proportioned to their merit and celebrity; but to one like this, that preſerves cadaverous deformity, and gives perpetuity to death, the voracity of a common grave is preferable. But Toulouze is not without objects more intereſting than academics; theſe are the new quay, the corn mills, and the canal de Brien. The quay is of a great length, and in all reſpects a noble work: the houſes intended to be built will be regular like thoſe already erected, in a ſtile awkward and inelegant. The canal de Brien, ſo called from the archbiſhop of Toulouze, afterwards prime miniſter and cardinal, was planned and executed in order to join the Garonne here with the canal of Languedoc, which is united at two miles from the town with the ſame river. The neceſſity of ſuch a junction ariſes from the navigation of the river in the town being abſolutely impeded by the wear which is made acroſs it in favour of the corn mills. It paſſes arched under the quay to the river, and one ſluice levels the water with that of the Languedoc canal. It is broad enough for ſeveral barges to paſs abreaſt. Theſe undertakings have been well planned, and their execution is truly magnificent: there is however more magnificence than trade; for while the Languedoc canal is alive with commerce, that of Brien is a deſert.

Among other things we viewed at Toulouze, was the houſe of Monſ. du Barrè, brother of the huſband of the celebrated counteſs. By ſome tranſactions, favourable to anecdote, which enabled him to draw her from obſcurity, and afterwards to marry her to his brother, he contrived to make a pretty conſiderable fortune. On the firſt floor is one principal and complete apartment, containing ſeven or eight rooms, fitted up and furniſhed with ſuch profuſion of expence, that if a fond lover, at the head of a kingdom's finances, were decorating for his miſtreſs, he could hardly give in large any thing that is not here to be ſeen on a moderate ſcale. To thoſe who are fond of gilding here is enough to ſatiate; ſo much that to an Engliſh eye it has too gaudy an appearance. But the glaſſes are large and numerous. The drawing-room very elegant (gilding always excepted).—Here I remarked a contrivance which has a pleaſing effect; that of a looking-glaſs before the chimnies, inſtead of thoſe various ſcreens

uſed

uſed in England: it ſlides backwards and forwards in the middle of the room. There is a portrait of Madame du Barrè, which is ſaid to be very like; if it really is, one would pardon a king ſome follies committed at the ſhrine of ſo much beauty.—As to the garden, it is beneath all contempt, except as an object to make a man ſtare at the efforts to which folly can arrive: in the ſpace of an acre, there are hills of genuine earth, mountains of paſte-board, rocks of canvaſs: abbées, cows, ſheep, and ſhepherdeſſes in lead; monkeys and peaſants, aſſes and altars, in ſtone. Fine ladies and blackſmiths, parrots and lovers in wood. Windmills and cottages, ſhops and villages, nothing excluded except nature.

The 15th. Meet Highlanders, who put me in mind of thoſe of Scotland; ſaw them firſt at Montauban; they have round flat caps, and looſe breeches: "pipers, blue bonnets, and oat-meal, are found," ſays Sir James Stuart, "in Catalonia, Auvergne, and Swabia, as well as in Lochabar." Many of the women here are without ſtockings. Meet them coming from the market, with their ſhoes in their baſkets. The Pyrenees, at ſixty miles diſtance, appear now ſo diſtinct, that one would gueſs it not more than fifteen; the lights and ſhades of the ſnow are ſeen clearly.——30 miles.

The 16th. A ridge of hills on the other ſide of the Garonne, which began at Toulouze, became more and more regular yeſterday; and is undoubtedly the moſt diſtant ramification of the Pyrenees, reaching into this vaſt vale quite to Toulouze, but no farther. Approach the mountains; the lower ones are all cultivated, but the higher ſeem covered with wood: the road now is bad all the way. Meet many waggons, each loaded with two caſks of wine, quite backward in the carriage, and as the hind wheels are much higher than the fore ones, it ſhews that theſe mountaineers have more ſenſe than John Bull. The wheels of theſe waggons are all ſhod with wood inſtead of iron. Here, for the firſt time, ſee rows of maples, with vines, trained in feſtoons, from tree to tree; they are conducted by a rope of bramble, vine cutting, or willow. They give many grapes, but bad wine. Paſs St. Martino, and then a large village of well built houſes, without a ſingle glaſs window.——30 miles.

The 17th. St. Gaudens is an improving town, with many new houſes, ſomething more than comfortable. An uncommon view of St. Betrand; you break at once upon a vale ſunk deep enough beneath the point of view to command every hedge and tree, with that town cluſtered round its large cathedral, on a riſing ground; if it had been built purpoſely to add a feature to a ſingular proſpect, it could not have been better placed. The mountains riſe proudly around, and give their rough frame to this exquiſite little picture.

Croſs the Garonne, by a new bridge of one fine arch, built of hard blue lime-ſtone. Medlars, plumbs, cherries, maples in every hedge, with vines trained.—Stop at Laureſſe; after which the mountains almoſt cloſe, and leave only a narrow vale, the Garonne and the road occupying ſome portion of it. Immenſe quantities of poultry in all this country; moſt of it the people ſalt and keep in greaſe. We taſted a ſoup made of the leg of a gooſe thus kept, and it was not nearly ſo bad as I expected.

Every crop here is backward, and betrays a want of ſun; no wonder, for we have been long travelling on the banks of a rapid river, and muſt now be very high, though ſtill apparently in vales. The mountains, in paſſing on, grow more intereſting. Their beauty, to northern eyes, is very ſingular; the black and dreary proſpects which our mountains offer are known to every one; but here the climate cloaths them with verdure, and the higheſt ſummits in ſight are covered with wood; there is ſnow on ſtill higher ridges.

Quit

Quit the Garonne ſome leagues before Sirpe, where the river Neſte falls into it. The road to Bagnere is along this river, in a very narrow valley, at one end of which is built the town of Luchon, the termination of our journey; which to me has been one of the moſt agreeable I ever undertook; the good humour and good ſenſe of my companions are well calculated for travelling; one renders a journey pleaſing, and the other inſtructive.—Having now croſſed the kingdom, and been in many French inns, I ſhall in general obſerve, that they are on an average better in two reſpects, and worſe in all the reſt, than thoſe in England. We have lived better in point of eating and drinking beyond a queſtion, than we ſhould have done in going from London to the Highlands of Scotland, at double the expence. But if in England the beſt of every thing is ordered, without any attention to the expence, we ſhould for double the money have lived better than we have done in France; the common cookery of the French gives great advantage. It is true, they roaſt every thing to a chip, if they are not cautioned; but they give ſuch a number and variety of diſhes, that if you do not like ſome, there are others to pleaſe your palate. The deſert at a French inn has no rival at an Engliſh one; nor are the liquors to be deſpiſed.—We ſometimes have met with bad wine, but upon the whole, far better than ſuch port as Engliſh inns give. Beds are better in France; in England they are good only at good inns; and we have none of that torment, which is ſo perplexing in England, to have the ſheets aired; for we never trouble our heads about them, doubtleſs on account of the climate. After theſe two points, all is a blank. You have no parlour to eat in; only a room with two, three, or four beds. Apartments badly fitted up; the walls white-waſhed, or paper of different ſorts in the ſame room; or tapeſtry ſo old as to be a fit nidus for moths and ſpiders; and the furniture ſuch, that an Engliſh inn-keeper would light his fire with it. For a table, you have every where a board laid on croſs bars, which are ſo conveniently contrived, as to leave room for your legs only at the end.—Oak chairs with ruſh bottoms, and the back univerſally a direct perpendicular, that defies all idea of reſt after fatigue. Doors give muſic as well as entrance; the wind whiſtles through their chinks; and hinges grate diſcord. Windows admit rain as well as light; when ſhut they are not eaſy to open; and when open not eaſy to ſhut. Mops, brooms, and ſcrubbing-bruſhes are not in the catalogue of the neceſſaries of a French inn. Bells there are none; the *fille* muſt always be bawled for; and when ſhe appears is neither neat, well dreſſed, nor handſome. The kitchen is black with ſmoke; the maſter commonly the cook, and the leſs you ſee of the cooking, the more likely you are to have a ſtomach to your dinner; but this is not peculiar to France. Copper utenſils always in great plenty, but not always well tinned. The miſtreſs rarely claſſes civility or attention to her gueſts among the requiſites of her trade.——30 miles.

The 28th. Having been now ten days fixed in our lodgings, which the Count de la Rochefoucauld's friends had provided for us, it is time to minute a few particulars of our life here. Monſieur Lazowſki and myſelf have two good rooms on a ground floor, with beds in them, and a ſervant's room, for four livres (3s. 6d.) a-day. We are ſo unaccuſtomed in England to live in our bed-chambers, that it is at firſt awkward in France to find that people live no where elſe. At all the inns I have been in, it has been always in bed-rooms; and here I find, that every body, let his rank be what it may, lives in his bed-chamber. This is novel; our Engliſh cuſtom is far more convenient, as well as more pleaſing. But this habit I claſs with the œconomy of the French. The day after we came, I was introduced to the la Rochefoucauld party, with whom we have lived; it conſiſts of the Duke and Ducheſs de la Rochefoucauld, daughter of the Duke de Chabot; her brother, the Prince de Laon and his Princeſs,

the daughter of the Duke de Montmorenci; the Count de Chabot, another brother of the Ducheſs de la Rochefoucauld; the Marquis d'Aubourval, who with my two fellow-travellers and myſelf, make a party of nine at dinner and ſupper. A traiteur ſerves our table at four livres a head for the two meals, two courſes and a good deſert for dinner; for ſupper one courſe and a deſert; the whole very well ſerved, with every thing good in ſeaſon; the wine ſeparate, at ſix ſous (3d.) a bottle. With difficulty the Count's groom found a ſtable. Hay is little ſhort of 5l. Engliſh per ton; oats much the ſame price as in England, but not ſo good; ſtraw dear, and ſo ſcarce, that very often there is no litter at all.

The States of Languedoc are building a large and handſome bathing-houſe, to contain various ſeparate cells, with baths, and a large common room, with two arcades to walk in, free from ſun and rain. The preſent baths are horrible holes, the patients lie up to their chins in hot ſulphureous water, which, with the beaſtly dens they are placed in, one would think ſufficient to cauſe as many diſtempers as they cure. They are reſorted to for cutaneous eruptions. The life led here has very little variety. Thoſe who bathe, or drink the waters, do it at half after five or ſix in the morning; but my friend and myſelf are early in the mountains, which are here ſtupendous; we wander among them to admire the wild and beautiful ſcenes which are to be met with in almoſt every direction. The whole region of the Pyrenees is of a nature and aſpect ſo totally different from every thing that I had been accuſtomed to, that theſe excurſions were productive of much amuſement. Cultivation is here carried to a conſiderable perfection in ſeveral articles, eſpecially in the irrigation of meadows: we ſeek out the moſt intelligent peaſants, and have many and long converſations with thoſe who underſtand French, which however is not the caſe with all, for the language of the country is a mixture of Catalan, Provençal, and French.—This, with examining the minerals (an article for which the Duke de la Rochefoucauld likes to accompany us, as he poſſeſſes a conſiderable knowledge in that branch of natural hiſtory), and with noting the plants with which we are acquainted, ſerves well to keep our time employed ſufficiently to our taſte. The ramble of the morning finiſhed, we return in time to dreſs for dinner, at half after twelve or one; then adjourn to the drawing-room of Madame de la Rochefoucauld, or the Counteſs of Grandval alternately, the only ladies who have apartments large enough to contain the whole company. None are excluded; as the firſt thing done by every perſon who arrives, is to pay a morning viſit to each party already in the place; the viſit is returned, and then every body is of courſe acquainted at theſe aſſemblies, which laſt till the evening is cool enough for walking. There is nothing in them but cards, trick-track, cheſs, and ſometimes muſic; but the great feature is cards: I need not add, that I abſented myſelf often from theſe parties, which are ever mortally inſipid to me in England, and not leſs ſo in France. In the evening, the company ſplits into different parties, for their promenade, which laſts till half an hour after eight; ſupper is ſerved at nine; there is after it, an hour's converſation in the chamber of one of our ladies; and this is the beſt part of the day,—for the chat is free, lively, and unaffected; and uninterrupted, unleſs on a poſt-day, when the Duke has ſuch packets of papers and pamphlets, that they make us all politicians. All the world are in bed by eleven.

In this arrangement of the day, no circumſtance is ſo objectionable as that of dining at noon, the conſequence of eating no breakfaſt; for as the ceremony of dreſſing is kept up, you muſt be at home from any morning's excurſion by twelve o'clock. This ſingle circumſtance, if adhered to, would be ſufficient to deſtroy any purſuits, except the moſt frivolous. Dividing the day exactly in halves, deſtroys it for any expedition, enquiry,

enquiry, or buſineſs that demands ſeven or eight hours attention, uninterrupted by any calls to the table or the toilette; calls which, after fatigue or exertion, are obeyed with refreſhment and with pleaſure. We dreſs for dinner in England with propriety, as the reſt of the day is dedicated to eaſe, to converſe, and relaxation; but by doing it at noon, too much time is loſt. What is a man good for after his ſilk breeches and ſtockings are on, his hat under his arm, and his head *bien poudré?*—Can he botanize in a watered meadow?—Can he clamber the rocks to mineralize?—Can he farm with the peaſant and the ploughman?—He is in order for the converſation of the ladies, which to be ſure is in every country, but particularly in France, where the women are highly cultivated, an excellent employment; but it is an employment that never re iſhes better than after a day ſpent in active toil or animated purſuit; in ſomething that has enlarged the ſphere of our conceptions, or added to the ſtores of our knowledge.—I am induced to make this obſervation, becauſe the noon dinners are cuſtomary all over France, except with perſons of conſiderable faſhion at Paris. They cannot be treated with too much ridicule or ſeverity, for they are abſolutely hoſtile to every view of ſcience, to every ſpirited exertion, and to every uſeful purſuit in life.

Living in this way, however, with ſeveral perſons of the firſt faſhion in the kingdom, is an object to a foreigner ſolicitous to remark the manners and character of the nation. I have every reaſon to be pleaſed with the experiment, as it affords me a conſtant opportunity to enjoy the advantages of an unaffected and poliſhed ſociety, in which an invariable ſweetneſs of diſpoſition, mildneſs of character, and what in Engliſh we emphatically call good temper, eminently prevail:—ſeeming to ariſe——at leaſt I conjecture it, from a thouſand little nameleſs and peculiar circumſtances—not reſulting entirely from the perſonal character of the individuals, but apparently holding of the national one.—Beſides the perſons I have named, there are among others at our aſſemblies, the Marquis and Marchioneſs de Hautfort; the Duke and Ducheſs de Ville (this Ducheſs is among the good order of beings); the Chevalier de Peyrac; Monſieur l'Abbé Baſtard; Baron de Serres; Viſcounteſs Duhamel; the Biſhops of Croire and Montauban; Monſieur de la Marche; the Baron de Montagu, a cheſs player; the Chevalier de Cheyron; and Monſieur de Bellecomb, who commanded in Pondicherry, and was taken by the Engliſh. There are alſo about half a dozen young officers, and three or four abbées.

If I may hazard a remark on the converſation of French aſſemblies, from what I have known here, I ſhould praiſe them for equanimity, but condemn them for inſipidity. All vigour of thought ſeems ſo excluded from expreſſion, that characters of ability and of inanity meet nearly on a par: tame and elegant, unintereſting and polite, the mingled maſs of communicated ideas has powers neither to offend nor inſtruct; where there is much poliſh of character, there is little argument; and if you neither argue nor diſcuſs, what is converſation?—Good temper, and habitual eaſe, are the firſt ingredients in private ſociety; but wit, knowledge, or originality, muſt break their even ſurface into ſome inequality of feeling, or converſation is like a journey on an endleſs flat.

Of the rural beauties we have to contemplate, the valley of Larbouſſe, in a nook of which the town of Luchon is ſituated, is the principal, with its ſurrounding accompaniment of mountain. The range that bounds it to the north is bare of wood, but covered with cultivation; and a large village, about three parts of its height, is perched on a ſteep, that almoſt makes the unaccuſtomed eye tremble with apprehenſion, that the village, church, and people will come tumbling into the valley. Villages thus perched, like eagles' neſts on rocks, are a general circumſtance in the Pyrenees, which appear to be wonderfully peopled. The mountain that forms the weſtern wall of the

valley, is of a prodigious magnitude. Watered meadow and cultivation riſe more than one-third the height. A foreſt of oak and beech forms a noble belt above it; higher ſtill is a region of ling; and above all ſnow. From whatever point viewed, this mountain is commanding from its magnitude, and beautiful from its luxuriant foliage. The range which cloſes in the valley to the eaſt is of a character different from the others; it has more variety, more cultivation, villages, foreſts, glens, and caſcades. That of Gouzat, which turns a mill as ſoon as it falls from the mountain, is romantic, with every accompaniment neceſſary to give a high degree of pictureſque beauty. There are features in that of Montauban, which Claude Loraine would not have failed transfuſing on his canvaſs; and the view of the vale from the cheſnut rock is gay and animated. The termination of our valley to the ſouth is ſtriking; the river Neſte pours in inceſſant caſcades over rocks that ſeem an eternal reſiſtance. The eminence in the centre of a ſmall vale, on which is an old tower, is a wild and romantic ſpot; the roar of the waters beneath unites in effect with the mountains, whoſe towering foreſts, finiſhing in ſnow, give an awful grandeur, a gloomy greatneſs to the ſcene; and ſeem to raiſe a barrier of ſeparation between two kingdoms, too formidable even for armies to paſs. But what are rocks, and mountains, and ſnow, when oppoſed to human ambition?—In the receſſes of the pendent woods, the bears find their habitation, and on the rocks above, the eagles have their neſts. All around is great; the ſublime of nature, with impoſing majeſty, impreſſes awe upon the mind; attention is rivetted to the ſpot; and imagination, with all its excurſive powers, ſeeks not to wander beyond the ſcene.

> Deepens the murmurs of the falling floods,
> And breathes a browner horror o'er the woods.

To view theſe ſcenes tolerably, is a buſineſs of ſome days; and ſuch is the climate here, or at leaſt has been ſince I was at Bagnere de Luchon, that not more than one day in three is to be depended on for fine weather. The heights of the mountains is ſuch, that the clouds, perpetually broken, pour down quantities of rain. From June 26th to July 2d, we had one heavy ſhower, which laſted without intermiſſion for ſixty hours. The mountains, though ſo near, were hidden to their baſes in the clouds. They do not only arreſt the fleeting ones which are paſſing in the atmoſphere, but ſeem to have a generative power; for you ſee ſmall ones at firſt, like thin vapour riſing out of glens, forming on the ſides of the hills, and increaſing by degrees, till they become clouds heavy enough to reſt on the tops, or elſe riſe into the atmoſphere, and paſs away with others.

Among the original tenants of this immenſe range of mountains, the firſt in point of dignity, from the importance of the miſchief they do, are the bears. There are both ſorts, carnivorous and vegetable-eaters; the latter are more miſchievous than their more terrible brethren, coming down in the night and eating the corn, particularly buck-wheat and maize; and they are ſo nice in chooſing the ſweeteſt ears of the latter, that they trample and ſpoil infinitely more than they eat. The carnivorous bears wage war againſt the cattle and ſheep, ſo that no ſtock can be left in the fields at night. Flocks muſt be watched by ſhepherds, who have fire-arms, and the aſſiſtance of many ſtout and fierce dogs: and cattle are ſhut up in ſtables every night in the year. Sometimes, by accident, they wander from their keepers, and if left abroad, they run a conſiderable riſque of being devoured.—The bears attack theſe animals by leaping on their back, force the head to the ground, and thruſt their paws into the body in the

 violence

violence of a dreadful hug. There are many hunting days every year for deſtroying them; ſeveral pariſhes joining for that purpoſe. Great numbers of men and boys form a cordon, and drive the wood where the bears are known or ſuſpected to be. They are the fatteſt in winter, when a good one is worth three louis. A bear never ventures to attack a wolf; but ſeveral wolves together, when hungry, will attack a bear, and kill and eat him. Wolves are here only in winter. In ſummer, they are in the very remoteſt parts of the Pyrenees—the moſt diſtant from human habitations: they are here, as every where elſe in France, dreadful to ſheep.

A part of our original plan of travelling to the Pyrenees, was an excurſion into Spain. Our landlord at Luchon had before procured mules and guides for perſons travelling on buſineſs to Saragoſſa and Barcelona, and at our requeſt wrote to Vielle, the firſt Spaniſh town acroſs the mountains, for three mules and a conductor, who ſpeaks French; and being arrived according to appointment, we ſet out on our expedition.

JULY 10. My friend and myſelf are mounted on the two beſt mules, which are, however, but ſmall; his ſervant, with our baggage, is on a third, and the owner of the mules, our conductor, marches on foot, boaſting that his legs are good for fifteen leagues a day; this is his buſineſs; but we are not a little diſappointed to find his French is pretty much that of a Spaniſh cow, if I may uſe a common French expreſſion. From Bagnere to Luchon, we aſcended inceſſantly, and, in our way, viewed the paſtures in the French mountains, which the Spaniſh flock-maſters hire for their ſheep in ſummer; which in emigrating, make thirteen days march every year from the lower parts of Catalonia. The management of theſe flocks is an object which muſt be explained elſewhere. Having ſatisfied ourſelves with the examination, we returned to the direct road for Vielle, which quits the river Neſte, about a league from Bagnere; it enters ſoon after one of the moſt wooded regions of the Pyrenees, and, at the ſame time, the moſt romantic. The way ſo bad, that no horſes but thoſe of the mountains could paſs it; but our mules trod ſecurely amidſt rolling ſtones on the edges of precipices of a tremendous depth; but though ſure footed, they are not free from ſtumbling; and, when they happen in thoſe ſituations to trip a little, they electrify their riders in a manner not altogether ſo pleaſantly as Mr. Walker. Paſs the frontier line which divides France from Spain, and ſtill riſing on the mountains, we ſee the Spaniſh valley of Aran, with the river Garonne winding through it in a beautiful manner. The town of Boſtoſe and the Spaniſh cuſtom-houſe are at the foot of the mountains. This valley of Aran is richly cultivated; nothing ſcarcely can be finer than the view of it from heights ſo great as to render the common objects intereſting; the road leads under trees, whoſe natural arches preſent, at every ten paces, new landſcapes. The thick woods give fine maſſes of ſhade; the rocks large, and every outline bold; and the verdant vale, that is ſpread far below at your feet, has all the features of beauty, in contraſt to the ſublimity of the ſurrounding mountains. Deſcend into this vale, and halt at our firſt Spaniſh inn. No hay, no corn, no meat, no glaſs in the windows; but cheap eggs and bread, and ſome ſmall trout, 15*s.* (7*d.*½ Engliſh).

Follow hence the Garonne, which is already a fine river, but very rapid; the inhabitants of the mountains float trees to their ſaw-mills, which are at work cutting boards. The whole valley of Aran is well cultivated and highly peopled; it is a journey of eight hours, or about forty Engliſh miles in length, and has thirty-two villages, or rather little towns, which have a pretty appearance, the walls being well built, and the roofs well ſlated; but on entering, the ſpectacle changes at once, for we found them the abodes of poverty and wretchedneſs; not one window of glaſs to be ſeen in a whole town; ſcarcely

ſcarcely any chimnies; the rooms of both floors vomiting the ſmoke out of the windows.

Arrive at Vielle, the capital of this valley, and the paſſage from the part of France we had left, to Barcelona; a circumſtance which has given it ſome trifling reſources. We were here informed, that we could not go into Spain without a paſſport: we waited, therefore, on the commandant, lieutenant-colonel and knight of Calatrava, who preſides over the whole valley, and its thirty-two towns; his houſe was the only one we had ſeen in this part that had glaſs windows. In his anti-room, under a canopy of ſtate, hung the king's picture. We were received with the Spaniſh formality, and aſſured, that a few months ago there was an order to ſend every foreigner, found without a paſſport, to the troops, which ſhews well enough the number of foreigners here. On each ſide of his excellency's bed was a brace of piſtols, and a crucifix in the middle; we did not aſk in which he puts the moſt confidence.

At Bagnere we were told that the inn at Vielle was good. We found the lower floor a ſtable, from which we mounted to a black kitchen, and, through that, to a baking room, with a large batch of loaves for an oven, which was heating to receive them. In this room were two beds for all the travellers who might happen to come; if too numerous, ſtraw is ſpread on the floor, and you may reſt as you can. No glaſs to the windows, and a large hole in the cieling to clamber into the garret above it, where the windows were without ſhutters to keep out either rain or wind. One of the beds was occupied, ſo that my companion laid on a table. The houſe, however, afforded eggs for an omlet, good bread, thick wine, brandy, and fowls killed after we arrived. The people very dirty, but civil.——26 miles.

The 11th. Left Vielle, and took that route to Barcelona, which is by the *porte* (paſſage acroſs the mountains) of Piaſs; another ſomewhat ſhorter being repreſented as exceedingly ſteep and difficult, and the country to that city worſe. Paſs ſeveral of the thirty-two villages of the valley of Aran, that croud on each other, ſo that the population muſt be very great. It reſults here, from the diviſion of property, and from the plenty of cattle and fuel yielded by the mountains belonging to every pariſh.

Paſs Arteas and Jaſa; croſs the river that falls into the Garonne; there is a fine view of the mountains over the former of theſe places, of wood, rock, and ſnow. The trees floating down the Garonne ſtrike their ends againſt the rocks in it, and make a moſt ſingular noiſe, very much like thunder. Paſs Salardeau and Tradoze, which is the laſt village of the valley, and near it the ſource of the river Garonne to the left; but a ſtream to the right, which we paſſed, ſeems rather larger. All the villages we have ſeen appear equally wretched; chimnies too great a luxury to look for in any of them. Vaſt rocks of granite are rolled promiſcuouſly from the mountains, and innumerable ſprings pour down their ſides. We then mounted to the very top of the Pyrenees, much above ſome of the remaining ſnow, and from the ſummit have a tremendous view of ridges of mountains, one beyond another, in Catalonia, many of them with ſnowy tops, to the diſtance of fifty or ſixty miles. It took us four hours and three quarters to get to the top of the higheſt ridge; yet when we began to aſcend, we muſt have been, if we may judge from the rapidity of the Garonne for ſeveral hundred miles from hence to Bourdeaux on ſome of the higheſt land in Europe. No wood at the top, but paſturage, amongſt rocks of micaceous ſchiſtus, for great herds of cows and oxen that breathe the pure air of this elevated region.

The ſprings we now meet with flow towards the Mediterranean; paſs a church that ſtands by itſelf in the deſcent, and a beautiful caſcade of five or ſix different falls, which pour down a torrent not leſs than five hundred feet amongſt wood; a vaſt rock above

it; the whole a great but ſavage view. The trees here (pines) are finer than on the French hills; they are all cut for the Touloufe market, being carried over the mountains, and floated down the Garonne; from which we may draw concluſions on the comparative demand of the two kingdoms.

Paſs a ſpot where an earthquake threw down part of a mountain, ſtopped a ſtream, and formed a large pond: it muſt have been a dreadful convulſion, for the ſpot is now a waſte of immenſe fragments of rock, large as cottages, that are tumbled about in ſuch ruinous confuſion as to be truly horrible to view. The tradition is, that four men and their mules were buried under them. Come to the valley of Eſteredano, where wheat and rye are cut. Every ſcrap on the deſcent is cultivated; it commands an extenſive ſavage view of mountains, with patches of culture ſcattered about the declivities. The proſpect down the vale beautiful.

Croſs an arch at the junction of two rivers, on which rafters are now formed of plank and trees, and floated down. Reach Scullów; the inn ſo bad, that our guide would not permit us to enter it; we therefore went to the houſe of the curé. A ſcene followed ſo new to Engliſh eyes, that we could not refrain from laughing very heartily. As our reverend hoſt had a chimney in his kitchen, we did not quarrel with the want of glaſs in his windows: he ran to the river to catch trout; a man brought ſome chickens, that were put to death on the ſpot. For light, they kindled ſplinters of pine, and two merry wenches and three or four men collected to ſtare at us, as well as we at them, were preſently buſy to ſatisfy our hunger. They gave us red wine, ſo dreadfully putrid of the boraccio, that I could not touch it; and brandy, poiſoned with anniſeed. What then were we to do? ſeeing our diſtreſs, they brought out a bottle of rich, excellent white wine, reſembling Mountain; all then was well: but when we came to examine the beds, there was but one to be found. My friend would again do the honours, and inſiſted on my taking it: he made his on a table, and what with bugs, fleas, rats, and mice, ſlept not. I was not attacked; and though the bed and a pavement might be ranked in the ſame claſs of ſoftneſs—fatigue converted it to down. This town and its inhabitants appeared equally wretched; the ſmoke holes, inſtead of chimnies, the total want of glaſs windows, the chearfulneſs of which, to the eye, is known only by the want; the dreſs of the women all black, with cloth of the ſame colour about their heads, and hanging half down their backs, no ſhoes, no ſtockings; the effect, upon the whole, as diſmal and ſavage as their rocks and mountains.——32 miles.

The 12th. The hills on each ſide are now almoſt cloſe, and juſt admit the river, the road, and a ſcrap of meadow. The rocks lamellated ſchiſtus, ſome micaceous. Larder, for the firſt time, ſpontaneous. Paſs Briaſca, a village perched on a mountain like an eagle's neſt. Come to Labourſel, where is an iron work, ſteel and iron made at the ſame time, and the furnace blown by the fall of water ſimply, without bellows. The water falls about ten feet, and, by its motion, drives the air into a ſort of tunnel, which points to the centre of the furnace; the bottom of the maſs of melted metal is ſteel; the middle of it ſoft, and the upper part hard iron. They burn charcoal made of pine wood. Paſs Rudáſs on the top of a rocky mountain, and come preſently to vines and fruit-trees, yet ſnow in ſight. As we deſcend to the vale, every ſpot is cultivated that is capable of it. Croſs the river to Realp, a long town with many ſhops, in which hemp fabrics ſeem a principal article. Hedges of pomegranates in bloſſom. Dine at a dreadful auberge, which, inſtead of ſatisfying, offended all the ſenſes we were maſters of.

Hitherto in Catalonia, we have ſeen nothing to confirm the character given of that province; for ſcarcely any thing has a tolerable appearance; the towns and the country appear equally poor and miſerable.

me.

Come to Jaré, whoſe environs wear a better countenance, on account of an immenſe ſalt-work belonging to the king. Here firſt meet with olives, and going up the mountain, which is all of pudding-ſtone, find it cut into terraces ſupported by walls, and planted with vines, mulberries, and olives.

The road then led through a paſs in the mountains, which preſented, I think, without exception, the moſt ſtriking ſcene that I had ever beheld. I remember the impreſſion that the ocean made on me the firſt time I ſaw it, and believe it to have been weaker than this; I ſhall not ſpend many words in attempting to deſcribe what the pencil itſelf in the hands of a maſter would fail to convey an adequate idea. The paſs is above a mile long; the rocks ſeem rent aſunder to make way for the river, which entirely fills the bottom of the chaſm. The road was cut out of the rock, and was wrought with gunpowder, a work of prodigious labour and expence. It paſſes on heights that vary the ſcene, and that give a depth below the eye enough to be intereſting. The mountains of ſtone, which riſe on either ſide, are the moſt tremendous in their height, magnitude, and pendent form, that imagination can conceive. Were all the rocks of England piled on one another, they would form but pigmy heaps, compared with theſe gigantic and ſtupendous maſſes. Rocks are commonly, even in their moſt bold appearances, detached parts of mountains; and, however great in themſelves, have maſſes above them, which leſſen their effect. It is otherwiſe here: if we ſuppoſe the ſkeletons of mountains laid bare to the eye, it will be but a vague idea. Vaſtneſs of ſize, perpendicularity of form—pendant—and protruding—every circumſtance that can give a power to inanimate nature, to command and arreſt attention, is ſpread forth with an impoſing magnificence through every feature of this ſublime ſcenery.

Paſs Coolagaſe, the features of the country now begin to relax; the mountains are not ſo high, and the vales are wider. Arrive at la Pobla, after a fatiguing journey of thirty-ſix Engliſh miles, more than half of which, as in general, we made on foot. Here we fared ſumptuouſly, for report made the inn ſo bad, that we took refuge with a ſhopkeeper. It ſeems an extraordinary circumſtance, that in theſe parts of Spain you ride to the door of a private houſe, deſire lodging and food, and pay of courſe what they demand. However, it muſt always be taken into the account of our fare, that the wine of all the country is ſo poiſoned with the boraccio, that water is the beſt beverage, unleſs anniſeed brandy ſhould be to your taſte. Sallads alſo, a principal diſh with them, are not eatable, by reaſon of the oil of the country being ſtrong and rancid; a quality which the inhabitants ſeem to think eſſential to good oil, for they every where gave it the higheſt praiſes. This town has ſome good houſes with glaſs windows; and we ſaw a well dreſſed young lady, attended in a gallant manner by two monks.—— 36 miles.

The 13th. Leave la Pobla, and croſs the river, which is ſixty yards wide; it compenſates, by the uſe made of its waters in irrigation, the miſchief it does in floods, for we paſſed two large tracts deſtroyed by it. The mountains around of bold and intereſting features; the country in general a mixture of cultivation and waſte, for ſome ſpace pleaſing enough to the eye; but they have no meadows, ſo that our mules have met with nothing like hay; ſtraw and barley are their food; and they tell us, that all over Spain it is the ſame thing, with ſome exceptions in watered lands for lucerne. Much corn threſhing every where.

The road leads by Monte Eſquieu, the whole of which conſiſts of a white ſtone and argillaceous marle. Look back over a great proſpect, but deſtitute of wood. Ourcaſó a poor place: there, as every where elſe, the firſt floor is a ſtable, which is cleaned out not more than once or twice a year, when the land is ready to receive the dung.

The

The delicious effluvia given to the reſt of the houſe, in ſo hot a climate, may be conjectured: riſing into the kitchen and the chambers, it there meets with ſuch a variety of other unſavory eſſences, as to form compounds ſufficient to puzzle the moſt dextrous of the aërial philoſophers to analize. All their white wine here is boiled. Deſcend mountains terraced for olives, which grow well on rocks, but add no beauty to them; inſomuch that cloathing a country with the moſt ugly of all trees adds nothing to the pleaſure of the eye.

Paſs in ſight of St. Roma, and croſs a diſtrict of ſhells, and a large waſte entirely covered with lavender.

Paſs up a hill which commands a vaſt proſpect of diſtant mountains, W. S. W., they are in Arragon; very high; and ſeen one beyond another to a great diſtance; alſo the ſnowy ones of the Pyrenees which we have left. Following the road, we ſee it opening to an immenſe view of what at firſt appears to be a plain, a great range of country towards the ſea; but it is all broken in mountainous ridges, which ſeem low, merely on compariſon with the greater heights from which we view. The Pyrenees in one great chain to the left, and the mountains of Tortoſa to the right. Deſcend to Fulca, where we ſtop for the night at an inn kept by a conſiderable farmer, and meet, for Spain, with tolerable accommodation. We had here, in the evening, a moſt tremendous tempeſt. The lightning which I have ſeen in England has been a mere glimmering, compared with the dreadful corruſcations of this ardent and electric atmoſphere. A range of the Pyrenees was in ſight for one hundred miles in a line; the forked flaſhes of the lightning darted in ſtreams of fire to the length of half that extent, and much of it from an immenſe height. The colour was of the brighteſt whiteneſs; the ſcene was great, awful and ſublime.——28 miles.

The 14th. In the morning the hemiſphere was all heavy with clouds, and ſome rain fell; we expreſſed apprehenſions of being wet, but our landlord ſaid we ſhould have a very fine day; we had confidence, and it proved a clear burning one.

Here I may obſerve, that in above one hundred miles in Catalonia, we have ſeen but two houſes that appeared decidedly to be gentlemen's, one the governor's at Viella, and the other in the town of La Pobla; and in the ſame line of country not more than one acre probably in two hundred is cultivated. Thus far, therefore, we have experienced an entire diſappointment in the expectation of finding this province a garden.

Paſs the ſide of a mountain covered with roſemary, box, and brambles, and deſcend into a rich vale to the town of Pous. Croſs the river Segre by a moſt commodious ferry boat, much better executed and contrived for carriages and horſes, than any I have ſeen in England. I have croſſed the Thames, the Severn, and the Trent, but never ſaw any in which the horſes were not forced to leap through a narrow cut in the ſide of the boat to the imminent danger of being lamed: and I have known both cows, oxen, and horſes killed in the operation. A carriage may be driven in and out of this ferry boat without taking off a horſe, or a perſon moving from his ſeat. The boat croſſes the river by a great rope paſſing over a lanthorn wheel. The care and attention given to irrigation here cannot be exceeded. Much ſilk winding.

They threſh their corn by driving mules in the oriental method on a circular floor of earth in the open air; a girl drives; three or four men turn the ſtraw, move it away, and ſupply the floor.

Paſs a waſte of marle, with ſtrata of talc in ſome places clear and tranſparent, ſhining, and breaking into thin flakes.—Deſerts for ſeveral miles. Paſs Ribelles, a vil-

lage whoſe white church and houſes, on the pinnacle of a rocky hill, have a ſingular effect in the midſt of an uncultivated dreary tract. Dine at Senavia; the day exceſſively hot, and the flies ſo innumerable, as to be a perfect plague. They have a good contrivance for keeping them off the table you eat at, which is a moveable and very light frame of canvas, ſuſpended from the cieling by two pivots, and a girl keeps pulling it backwards and forwards while you are at table; the motion it gives the air drives off the flies. Where this invention is not adopted, ſhe uſes a hand-flapper for the ſame purpoſe, fanning in a droll manner, and far from diſagreeable, when the girl is pretty. Paſs many watered grounds, with peaches, apples, and ripe pears. Pomegranates in the hedges as large now as walnuts in the ſhell. To Bioſca moſtly defert hills, but with ſome broad vales. No where any wood to be ſeen, except olives, and evergreen oaks, which are almoſt as ſad as olives. Towards Torá the country is more cultivated, and has ſome ſcattered houſes, which I note as a new circumſtance. Paſs Caſtle Follit. The country improves to Calaf, where we arrived after a burning journey of forty Engliſh miles, having been fourteen hours on our mules.——40 miles.

The 15th.—Sunday. To maſs at four in the morning: the church almoſt full of muleteers; it was evident that we were in Spain, from the fervency of devotion with which they beat their breaſts at ſome of the reſponſes in the ſervice. How far this violent attention to religion is connected with the waſte ſtate of their province, I ſhall leave to others to determine. One thing, which ſurpriſed me a good deal, was ſeeing great numbers of men going out of town with reap-hooks to cut their corn, juſt as on any other day; this muſt be with the leave of their prieſts; and to give ſuch permiſſion, ſpeaks more liberality than I had been taught to expect.

Croſs a great waſte, and mount a hill, from whence an extenſive view over a naked country; and, for the firſt time, we ſee Montſerrat, the outline of which is intereſting. Dine at Camprat, in the midſt of a rocky country, of a ſavage aſpect, with ſo many waſtes, that not one acre in an hundred is cultivated. Arrive at the foot of Montſerrat, which, from the deſcription given of it by Mr. Thickneſs, was one object of our journey.

It is a remarkably iſolated mountain, but of an immenſe baſis. An admirable winding road is made, by which we mounted to the convent; to make this way was a great effort in a country where ſo few good roads are to be found. Much of this is hewn out of the live rock. In other reſpects, it is one of the moſt ſingular in the world. On the right hand is a wall of mountain fringed with wood, at the top of which are thoſe ſtupendous rocks, which render it famous: to the left a precipice horrible for depth, but all covered with plants, which in England are ſought with anxiety and expence for adorning ſhrubberies and gardens; and vegetation here has the luxuriance which may be expected in one of the fineſt climates in the world. The road ſo level, and theſe beautiful plants ſo thick, that they altogether reſemble the alley of a decorated ground. The ſcenery on which you look is every where uncommon; ſuch a confuſion of ſhades and maſſes; ſuch a tumult of forms, that the eye wanders with a kind of amazement from part to part, without being able to repoſe in the quiet command of any diſtinct object.

We arrived at the convent in time for the evening hymns and muſic. The church is ſplendid, ſome of the pictures fine, and the multitude of offerings of diamonds, rubies, and all other precious ſtones, with the quantity of gold and ſilver lamps, vaſes, &c. are the laſt objects for me to dwell on, ſince they never raiſe any other emotion in my boſom than of diſguſt. I hate the folly that gives; and if the monks are honeſt, I hate the folly that receives.

On

On our arrival we were conducted to a neat, plain apartment in the convent, of two rooms furniſhed with mere neceſſaries, and we were ſupplied by the ſervants with ſuch food and wine as we requeſted, at a very moderate expence. To this uſeful ſpecies of hoſpitality, we were obliged for a comfortable night's reſt.——27 miles.

The 16th. The principal object which had induced us to take Montſerrat in our way, was the amazing proſpect commanded from the top of the mountain, and from the various hermitages deſcribed by Mr. Thickneſs. This morning we walked up the hill, but the weather proved ſo perverſe to our views, both in mounting and deſcending, that we were the whole time in the clouds. I ſhould moſt willingly have ſtaid two or three days here, and waited for a better time; but my friend was in ſuch a hurry to return to Bagnere to the Count de la Rochefoucauld, that we muſt have ſeparated, had I done it. In ſuch tours as theſe, it is always beſt to take a ſuperfluity of time; a thing very difficult to do when one travels in company; and that of Monſ. L. was much too valuable and intereſting to me to allow ſuch a queſtion for a moment. All we could do in our elevated ſituation, was to mortify ourſelves with imagining the prodigious proſpect before us, without a poſſibility of ſeeing five hundred yards, for the clouds were beneath as well as around us. We ſtopped at one of the hermitages, the inhabitant of which, a Malteſe of a gentleman-like deportment and manners, received us hoſpitably and politely, ſetting out bread, wine, and fruit. He lamented our ill luck, telling us that the iſland of Majorca was diſtinctly to be ſeen from his little garden, which we viewed with pleaſure, but ſhould have been better pleaſed to have ſeen Majorca. But though the diſtant proſpect was thus excluded, we had the opportunity to examine and admire the uncommon and ſtriking form of the rocks, of which this moſt intereſting mountain is compoſed; the whole ſeems one vaſt maſs of pudding ſtone.

Leave the convent, and take the road for Barcelona, which, in richneſs of vegetable accompaniment, is inferior to that by which we came; we were ſeveral miles deſcending. Paſs Orevoteau, where is a hedge of aloes four feet high: here we are in a high road, for we meet for the firſt time a cabriolet. Paſs a wretched ſtony deſert, which yields only aromatic plants, ſcattered with diſmal evergreen oaks. Eſparagara is the firſt manufacturing town we met with; woollen cloths, ſtuffs, and laces: the town is near a mile long. Near Martorell, ſee the triumphal arch, ſaid to be built by Annibal; it has been lately repaired. In that town every one is employed in lace making; they have, however, another occupation not quite ſo agreeable to the eye, that of picking vermin out of each other's heads, in which numbers of them were employed; nor can any thing be more ſtinking or filthy than their perſons, or more dirty than their houſes: to view either, is enough to impreſs the idea, that cleanlineſs is one of the firſt of the virtues, and doubly ſo in ſuch a hot climate. No new houſes in any of theſe towns. The country is diſagreeable, and rendered worſe by many beds of torrents, without a drop of water; arid and hurtful to the eye. Apricots, plumbs, melons, &c. ripe, and ſold in the ſtreets.

Come to a noble road, which they are making at the expence of the king; fifty or ſixty feet wide, and walled on the ſide to ſupport the earth, of which it is formed. The country now is far more populous and better built, many vines, and much cultivation.

It will probably be found, that the great reputation of this province has ariſen from the improvements in the lower, flat, and irrigated parts; if ſo, it ought to be diſcriminated; for by far the larger part of it is mountainous, not leſs in proportion, I ſhould conceive, than ſeven-eighths. Paſs a large paper mill; and continuing on the

ſame fine road, join another equally great and well made, that leads to Villa Franca. Turn to the left for Barcelona, and croſs a bridge of red granite, a ſolid, durable, and noble work, four hundred and forty paces long; but, though built only eight years ago, is in a bad and inelegant ſtile. Now meet a great number of carts and carriages, drawn by very fine mules, and mark every appearance of approaching a great city. Within two or three miles of it, there are many villas and good buildings of all ſorts, ſpreading to the right and left, and ſeen all over the country. I have been at no city ſince we left Paris, whoſe approach carries ſuch a face of animation and cheerfulneſs; and conſidering Paris as the capital of a great kingdom, and Barcelona as that of a province only, the latter is more ſtriking beyond all compariſon. This noble road does honour to the preſent king of Spain; it is carried in an even line over all narrow vales, ſo that you have none of the inconveniencies which otherwiſe are the effect of hills and declivities. A few palm trees add to the novelty of the proſpect to northern eyes. The firſt view of the town is very fine, and the ſituation truly beautiful. The laſt half mile we were in great haſte to be in time for the gates, as they are ſhut at nine o'clock. We had had a burning ride of forty miles, and were a good deal fatigued, yet forced to undergo a ridiculous ſearch, as every thing pays an entrée to government on going into the town; and we had ſtill two miles I believe to paſs, firſt to the French crown, which inn was full, and then to La Fonde, where we found good quarters.

My friend thought this the moſt fatiguing day he had ever experienced: the exceſſive heat oppreſſed him much; and, indeed, travellers in general are much more prudent than to ride during the whole day in the middle of July, chooſing rather to expoſe themſelves to fatigue here in the morning and evening only But after a ſucceſſion of dog holes, with perpetual ſtarving and mortification in the mountains, the contraſt of this inn was great. It is a very good one, with many waiters, active and alert as in England. A good ſupper, with ſome excellent Mediterranean fiſh; ripe peaches; good wine; the moſt delicious lemonade in the world; and good beds, all tended to revive us; but Monſ. Lazowſki was too much fatigued for enjoying them. ——40 miles.

The 17th. View the town, which is large, and to the eye, in every ſtreet, remarkably populous: many of them are narrow, which may be expected in an old town; but there are alſo many others broader, with good houſes; yet one cannnot on the whole conſider it as well built, except as to public edifices, which are erected in a magnificent ſtile. There are ſome conſiderable openings, which, though not regular ſquares, are ornamental, and have a good effect in ſetting off the new buildings to the beſt advantage. One quarter of the city, called Barcelonetta, is entirely new, and perfectly regular; the ſtreets cutting each other at right angles; but the houſes are all ſmall and low, being meant for the reſidence of ſailors, little ſhop keepers, and artizans: one front of this new town faces the quay. The ſtreets are lighted, but the duſt ſo deep in ſome of them, eſpecially the broader ones, that I know not whether they are all paved. The governor's houſe and the new fountain are on a ſcale, and in a ſtile, which ſhews that there are no mean ideas of embelliſhment here. The royal foundery for cannon is very great. The building ſpacious, and every thing ſeems executed in a manner that proves no expence was ſpared. The guns caſt are chiefly braſs: they are ſolid; and ſome twenty-four pounders boring; perhaps in all mechanics the moſt curious operation, and which can never be viewed without paying ſome homage to the genius that firſt invented it. In time of war three hundred men are em-

But the object at Barcelona which is the moſt ſtriking, and which, according to my knowledge at leaſt, has no where a rival, is the quay. The deſign and execution are equally good. I gueſs it about half a mile long. A low platform of ſtone is built but a few feet above the water, cloſe to which the ſhips are moored; this is of breadth ſufficient for goods and packages of all ſorts in loading and unloading the veſſels. A row of arched warehouſes open on to this platform, and over thoſe is the upper part of the quay on a level with the ſtreet; and for the convenience of going up or down from one to the other, there are gently ſloping ways for carriages, and alſo ſtair-caſes. The whole is moſt ſolidly erected in hewn ſtone, and finiſhed in a manner that diſcovers a true ſpirit of magnificence in this moſt uſeful ſort of public works. The road by which we travelled for ſeveral miles—the bridge by which we paſſed the river—and this quay, are works that will do laſting honour to the preſent king of Spain. There are now about 140 ſhips in the harbour; but the number ſometimes much larger.

It is impoſſible to view ſuch admirable works as the quay of Barcelona, without regretting the enormous ſums waſted in war and bloodſhed. No quarrel happens between two nations, but it coſts twenty ſuch quays; a thouſand miles of magnificent road; an hundred bridges; the pavement, lights, fountains, palaces, and public ornaments of fifty cities. To tell a prince or a parliament (the latter wants this leſſon to the full as much as the former), that a war is as abſurd as it is cruel, for it will coſt ſo much money in figures, makes not the leaſt impreſſion; they never ſee the money, and the expence is of ſomething ideal; but to tell the king of Spain that it would coſt the Eſcurial, St. Ildefonſo, his palace at Madrid, and all the roads in his kingdom, and he would think very ſeriouſly before he engaged in it. To reaſon with a Britiſh parliament, when her noiſy factious orators are bawling for the honour of the Britiſh lion, for the rights of commerce, and freedom of navigation; that is, for a war—that ſuch a war will coſt an hundred millions ſterling, and they are deaf to you. But let it coſt them thoſe roads on which they roll ſo luxurioufly, the public bridges, and the great edifices that decorate the capital, and our other cities, if the members were willing at ſuch a price to hazard a war, the people would probably pull down their houſes. Yet the caſes are preciſely the ſame; for if you ſpend the money that would form and build ſuch things, you in effect ſpend the things themſelves. A very little calculation would ſhew, that the expence of our three laſt wars, which had no other effect whatever but to ſpill blood and fill gazettes, would have made the whole iſland of Great Britain a garden; her whole coaſt a quay; and have converted all the houſes in her towns into palaces, and her cottages into houſes. But to return.

The manufactories at Barcelona are conſiderable. There is every appearance as you walk the ſtreets of great and active induſtry; you move no where without hearing the creak of ſtocking engines. Silk is wrought into handkerchiefs, though not on ſo great a ſcale as at Valencia; ſtockings, laces, and various ſtuffs. They have alſo ſome woollen fabrics, but not conſiderable. The chief buſineſs of the place is that of commiſſion; the amount of the trade tranſacted is conſiderable, though not many ſhips belong to the port.

The induſtry and trade, however, which have taken root, and proſpered in this city, have withſtood the continued ſyſtem of the court to deal ſeverely with the whole province of Catalonia. The famous efforts which the Catalans made to place a prince of the houſe of Auſtria on the throne of Spain, were not ſoon forgotten by the princes of the houſe of Bourbon, to their diſhonour. Heavy taxes have been laid on the people; and the whole province continues to this day diſarmed; ſo that a nobleman cannot

wear

wear a ſword, unleſs privileged to do it by grace or office; and this goes ſo far, that in order to be able to ſhew this mark of diſtinction, they are known to get themſelves enrolled as familiars of the inquiſition, an office which carries with it that licence. I note this correctly according to the information given me; but I hope the perſon who gave it was miſtaken. For the nobility to ſtoop to ſuch a meanneſs, and the court to drive men to ſuch unworthy means of diſtinction, fourſcore years after their offence, which was fidelity to the prince whom they eſteemed their lawful ſovereign, ſuch an act reflects equal diſhonour upon the nobility and the crown. The mention of the inquiſition made us enquire into the preſent ſtate of that holy office, and we were informed, that it was now formidable only to perſons of very notorious ill fame; and that whenever it does act againſt offenders, an inquiſitor comes from Madrid to conduct the proceſs. From the expreſſions, however, which were uſed, and the inſtances given, it appeared that they take cognizance of caſes not at all connected with faith in religion; and that if men or women are guilty of vices, which render them offenſive, this was the power that interpoſed; an account, in my opinion, by no means favourable for the circumſtance, which was ſuppoſed moſt to limit their power, was the explicit nature of the offence, viz. being againſt the Catholic faith, and by no means againſt public morals, to ſecure which is an object for very different judicatures in every country.

The markets here are now full of ripe figs, peaches, melons, and the more common fruits in great profuſion. I bought three large peaches for a penny, and our laquais de place ſaid, that I gave too much, and paid like a foreigner; but they have not the flavour of the ſame fruit in England. In the gardens there are noble orange trees loaded with fruit, and all ſorts of garden vegetables in the greateſt plenty. The climate here in winter may be conjectured from their having green peaſe every month in the year.

View the very pretty fort to the ſouth of the town, which is on the ſummit of a hill that commands a vaſt proſpect by ſea and land. It is exceedingly well built and well kept. Notwithſtanding this fort to the ſouth, and a citadel to the north of the town, corſairs in time of war have cut fiſhing veſſels out of the road, and very near the ſhore.

In the evening to the play; the theatre is very large, and the ſeats on the two ſides of the pit (for the centre is at a lower price) extremely commodious; each ſeat is ſeparate, ſo that you ſit as in an elbow chair. A Spaniſh comedy was repreſented, and an Italian opera after it. We were ſurprized to find clergymen in every part of the houſe; a circumſtance never ſeen in France. Twice a week they have an Italian opera, and plays the other evenings. In the centre of the pit on benches the common people ſeat themſelves. I ſaw a blackſmith, hot from the anvil, with his ſhirt ſleeves tucked above his elbows, who enjoyed the entertainment equally with the beſt company in the boxes, and probably much more. Every well dreſſed perſon was in the French faſhion; but there were many who ſtill retained the Spaniſh mode of wearing their hair without powder, in a thick black net which hangs down the back; nothing can have a worſe effect, or appear more offenſive in ſo hot a climate.

The 18th. On leaving the town, we were ſearched again, which ſeems both uſeleſs and burthenſome. Enter immediately an extraordinary ſcene of watered cultivation, ſo fine, that I ſuppoſe it has given the general reputation to the whole province. The Indian fig, called here figua de Maura, grows ſix or ſeven feet high, very branching and crooked; the arms at bottom as thick as the thigh of a common man; theſe and many aloes in the hedges. At Ballalo, two hours from Barcelona, meet with the

firſt vineyards; but the hills here, for the moſt part, come down to the ſea; and where they do not, the vale is not more than half a mile wide. Lycium in the hedges; oranges in the gardens; a few palm trees with vines around them. All here encloſed, and the men mending gaps in their hedges. The appearance of induſtry on this coaſt is as great as poſſible. Numbers of fiſhing boats and nets, with rows of good white houſes on the ſea ſide; and while the men are active in their fiſheries, the women are equally buſy in making lace. Dine at Gremah; many large villages and ſcattered houſes all the way. Wherever there is an opening in the mountains, more diſtant and ſtill higher ones are ſeen; a circumſtance which unites with the vaſt view from Montſerrat, and ſhews that all behind is mountainous, and that the vales are no where large. Paſs a valley, part highly cultivated, but the reſt for a quarter of a mile of breadth totally ruined by a torrent. Reach Martaró, a large town of white and clean well built houſes, the ſtreets croſſing each other at right angles. The inhabitants appear exceedingly induſtrious; there are ſome ſtocking engines and lace-makers at every corner. Every houſe has one large door, which ſerves both for door and window to that room; an undoubted proof of the warmth of the climate. I am ſorry to add, that here alſo the induſtry of catching vermin in each other's heads is very active.

Paſs Arenys, a large town, where ſhip-building ſeems a buſineſs of ſome conſequence: making thread lace univerſal here; the thread comes from France. Canet, another large town, employed in ſhip-building, fiſhing, and making lace. All theſe towns are well built, with an equal appearance of general induſtry, and its inſeparable companion, private comfort. Every ſcrap of flat land well cultivated, and the hills covered with vines.

At Callella, a large town like the former, full of induſtry, but the inn no better than in the mountains, a ſtinking, dirty, dreadful hole, without any thing to eat or drink but for muleteers; yet we are now in the high road from Paris to Madrid.——36 miles.

The 19th. Leave Callella, and in leſs than a league come to Pineda, another large town, and paſs Malgrat, which is not ſo well built as the preceding, but much lace made in it.

The road here turns from the ſea into an encloſed woodland. Pomegranates make very fine thick hedges. There are old caſtles on the hills to defend the coaſt againſt the Africans. Houſes ſcattered every where, a feature eſſential to a fine country, and an agreeable landſcape. Poplars planted in ſome fields, and vines trained from one to another. From reading accounts of this huſbandry, I had formed an idea that it muſt be ſingularly beautiful to ſee feſtoons of vines hanging from tree to tree; but there is nothing either pleaſing or ſtriking in it. The Pyrenees are now in front, with very high mountains to the left, with their heads in the clouds.

Paſs for ſeveral miles a country much mixed with waſtes; and come to a very large one, ſpreading over ſeveral extenſive hills for many miles, that preſents an extraordinary ſpectacle to northern eyes. It is a thicket of aromatic plants, and beautiful flowering ſhrubs, with but a ſmall mixture of plants common in England. Large ſpreading myrtles three or four feet high, jeſſamines, honey-ſuckles, lavender, roſemary, bay, lentiſcus, tamariſc, caſſia, &c. &c. but all nuiſances here even worſe than heath with us, for we ſee neither ſheep nor goats. Paſs Goronota, and many waſtes for ſome miles on gentle ſlopes, and come again to a thick woodland encloſed country, like ſome parts of England. Many hedges of the yellow bloſſomed prickly acacia, which anſwers well

for that purpoſe. Reach Girona, an old town walled and fortified with ſome redobuts, and a fort on the hill above it; but not kept up, nor indeed would it ſtop an army half an hour. Here is a cathedral and a biſhop, who gave us his bleſſing as we paſſed him, drawn in his coach by ſix mules. His revenue is 24,000 French livres; there are *curées*, who have from 1200 to 2000 livres. They tithe no live ſtock. They have no manufactures of any conſequence, and no reſource but that of agriculture; yet, what is extraordinary, Caſtilian and French workmen come hither for employment.——36 miles.

Snow is on the Pyrenees as well as at Bagnere de Luchon.

July 21. Leave Junquerras, where the countenances and manners of the people would make one believe all the inhabitants were ſmugglers. Come to a moſt noble road, which the king of Spain is making; it begins at the pillars that mark the boundaries of the two monarchies, joining with the French road; it is admirably executed. Here take leave of Spain and re-enter France: the contraſt is ſtriking. When one croſſes the ſea from Dover to Calais, the preparation and circumſtance of a naval paſſage lead the mind by ſome gradation to a change; but here, without going through a town, a barrier, or even wall, you enter a new world. From the natural and miſerable roads of Catalonia, you tread at once on a noble cauſeway, made with all the ſolidity and magnificence that diſtinguiſh the highways of France. Inſtead of beds of torrents you have well built bridges; and from a country wild, deſert, and poor, we found ourſelves in the midſt of cultivation and improvement. Every other circumſtance ſpoke the ſame language, and told us by ſigns not to be miſtaken, that ſome great and operating cauſe worked an effect too clear to be miſunderſtood. The more one ſees, the more I believe we ſhall be led to think, that there is but one all-powerful cauſe that inſtigates mankind, and that is government!—Others form exceptions, and give ſhades of difference and diſtinction, but this acts with permanent and univerſal force. The preſent inſtance is remarkable; for Rouſſillon is in fact a part of Spain; the inhabitants are Spaniards in language and in cuſtoms; but they are under a French government.

Great range of the Pyrenees at a diſtance. Meet ſhepherds that ſpeak the Catalan. The cabriolets we meet are Spaniſh. The farmers threſh their corn like the Spaniards. The inns and the houſes are the ſame. Reach Perpignan; there I parted with Monſ. Lazowſki He returned to Bagnere de Luchon, but I had planned a tour in Languedoc, to fill up the time to ſpare.——15 miles.

The 22d. The Duke de la Rochefoucauld had given me a letter to Monſieur Barri de Laſſeuſes, major of a regiment at Perpignan, and who, he ſaid, underſtood agriculture, and would be glad to converſe with me on the ſubject. I ſallied out in the morning to find him, but being Sunday, he was at his country ſeat at Pia, about a league from the town. I had a roaſting walk thither, over a dry ſtony country under vines. Monſieur, Madame, and Mademoiſelle de Laſſeuſes, received me with great politeneſs. I explained the motives of my coming to France, which were not to run idly through the kingdom with the common herd of travellers, but to make myſelf a maſter of their agriculture; that if I found any thing good and applicable to England, I might copy it. He commended the deſign greatly; ſaid it was travelling with a truly laudable motive; but expreſſed much aſtoniſhment, as it was ſo uncommon; and was very ſure there was not a ſingle Frenchman in all England on ſuch an errand. He deſired I would ſpend the day with him. I found the vineyard the chief part of his huſbandry, but he had ſome arable land, managed in the ſingular manner of that province. He

pointed

pointed to a village which he ſaid was Riveſalta, which produced ſome of the moſt famous wine in France; at dinner I found that it merited its reputation. In the evening returned to Perpignan, after a day fertile in uſeful information.——8 miles.

The 23d. Take the road to Narbonne. Paſs Riveſalta. Under the mountain there is the largeſt ſpring I ever ſaw. Otters-Pool and Holywell are bubbles to it. It riſes at the foot of the rock, and is able to turn immediately many mills; being at once rather a river than a ſpring. Paſs an uninterrupted flat waſte, without a ſingle tree, houſe, or village for a conſiderable diſtance: by much the uglieſt country I have ſeen in France. Great quantities of corn every where treading out with mules as in Spain. Dine at Sejean, at the Soleil, a good new inn, where I accidentally met with the Marquis de Treſſan. He told me, that I muſt be a ſingular perſon to travel ſo far with no other object than agriculture: he never knew nor heard of the like; but approved much of the plan, and wiſhed he could do the ſame.

The roads here are ſtupendous works. I paſſed a hill, cut through to eaſe a deſcent, that was all in the ſolid rock, and coſt 90,000 livres (3,937l.) yet it extends but a few hundred yards. Three leagues and an half from Sejean to Narbonne coſt 1,800,000 livres (78,750l.). Theſe ways are ſuperb even to a folly. Enormous ſums have been ſpent to level even gentle ſlopes. The cauſeways are raiſed and walled on each ſide, forming one ſolid maſs of artificial road, carried acroſs the vallies to the height of ſix, ſeven, or eight feet, and never leſs than fifty wide. There is a bridge of a ſingle arch, and a cauſeway to it, truly magnificent; we have not an idea of what ſuch a road is in England. The traffic of the way, however, demands no ſuch exertions; one-third of the breadth is beaten, one-third rough, and one-third covered with weeds. In thirty-ſix miles, I have met one cabriolet, half a dozen carts, and ſome old women with aſſes. For what all this waſte of treaſure?—In Languedoc, it is true, theſe works are not done by corvées; but there is an injuſtice in levying the amount not far ſhort of them. The money is raiſed by tailles, and, in making the aſſeſſment, lands held by a noble tenure are ſo much eaſed, and others by a baſe one ſo burthened, that one hundred and twenty arpents in this neighbourhood, held by the former, pay 90 livres and four hundred poſſeſſed by a plebeian right, which ought proportionally to pay 300 livres, is, inſtead of that, aſſeſſed at 1400 livres. At Narbonne, the canal which joins that of Languedoc deſerves attention; it is a very fine work, and will, they ſay, be finiſhed next month. ——36 miles.

The 24th. Women without ſtockings, and many without ſhoes; but if their feet are poorly clad, they have a ſuperb conſolation in walking upon magnificent cauſeways: the new road is fifty feet wide, and fifty more digged away or deſtroyed to make it.

The vintage itſelf can hardly be ſuch a ſcene of activity and animation as this univerſal one of treading out the corn, with which all the towns and villages in Languedoc are now alive. The corn is all roughly ſtacked around a dry firm ſpot, where great numbers of mules and horſes are driven on a trot round a centre, a woman holding the reins, and another, or a girl or two, with whips drive; the men ſupply and clear the floor; other parties are dreſſing, by throwing the corn into the air for the wind to blow away the chaff. Every ſoul is employed, and with ſuch an air of cheerfulneſs, that the people ſeem as well pleaſed with their labour, as the farmer himſelf with his great heaps of wheat. The ſcene is uncommonly animated and joyous. I ſtopped and alighted often to ſee their method; I was always very civilly treated, and my wiſhes for a good price for the farmer, and not too good a one for the poor, well received. This method, which entirely ſaves barns, depends abſolutely on climate: from my leaving Bagnere de Luchon to this moment, all through Catalonia, Rouſſillon, and this part of Languedoc,

there has been nothing like rain; but one unvarying clear bright ſky and burning ſun, yet not at all ſuffocating, or to me even unpleaſant. I aſked whether they were not ſometimes caught in the rain? they ſaid, very rarely indeed; but if rain did come, it is ſeldom more than a heavy ſhower, which a hot ſun quickly ſucceeds and dries every thing ſpeedily.

The canal of Languedoc is the capital feature of all this country. The mountain through which it pierces is inſulated, in the midſt of an extended valley, and only half a mile from the road. It is a noble and ſtupendous work, goes through the hill about the breadth of three toiſes, and was digged without ſhafts.

Leave the road, and croſſing the canal, follow it to Beziers; nine ſluice-gates let the water down the hill to join the river at the town.—A noble work! The port is broad enough for four large veſſels to lie abreaſt; the greateſt of them carries from ninety to one hundred tons. Many of them were at the quay, ſome in motion, and every ſign of an animated buſineſs. This is the beſt ſight I have ſeen in France. Here Louis XIV. thou art truly great!—Here with a generous and benignant hand, thou diſpenſeſt eaſe and wealth to thy people!—*Si ſic omnia*, thy name would indeed have been revered! To effect this noble work, of uniting the two ſeas, leſs money was expended than to beſiege Turin, or to ſeize Straſbourg like a robber. Such an employment of the revenues of a great kingdom is the only laudable way of a monarch's acquiring immortality; all other means make their names ſurvive with thoſe only of the incendiaries, robbers, and violaters of mankind. The canal paſſes through the river for about half a league, ſeparated from it by walls which are covered in floods; and then turns off for Cette. Dine at Beziers. Knowing that Monſ. l'Abbé Rozier, the celebrated editor of the Journal Phyſique, and who is now publiſhing a dictionary of huſbandry, which in France has much reputation, lived and farmed near Beziers, I enquired at the inn the way to his houſe. They told me that he had left Beziers two years, but that the houſe was to be ſeen from the ſtreet, and accordingly they ſhewed it me from ſomething of a ſquare open on one ſide to the country; adding, that it belonged now to a Monſ. de Rieuſe, who had purchaſed the eſtate of the Abbé. To view the farm of a man celebrated for his writings, was an object, as it would at leaſt enable me, in reading his book, to underſtand better the alluſions he might make to the ſoil, ſituation, and other circumſtances. I was ſorry to hear at the table d'hôte, much ridicule thrown on the Abbé Rozier's huſbandry, that it had *beaucoup de fantaſie mais rien ſolide;* in particular, they treated his paving his vineyards as a ridiculous circumſtance. Such an experiment ſeemed remarkable, and I was glad to hear of it, that I might deſire to ſee theſe paved vineyards. The Abbe here, as a farmer, has juſt that character which every man will be ſure to have who departs from the methods of his neighbours; for it is not in the nature of countrymen, that any body ſhould come among them who can preſume with impunity to think for himſelf. I aſked why he left the country? and they gave me a curious anecdote of the Biſhop of Beziers cutting a road through the Abbé's farm, at the expence of the province, to lead to the houſe of his (the biſhop's miſtreſs), which occaſioned ſuch a quarrel, that Monſ. Rozier could ſtay no longer in the country. This is a pretty feature of a government: that a man is to be forced to ſell his eſtate, and driven out of a country, becauſe biſhops make love—I ſuppoſe to their neighbours' wives, as no other love is faſhionable in France. Which of my neighbours' wives will tempt the Biſhop of Norwich to make a road through my farm, and drive me to ſell Bradfield? I give my authority for this anecdote, the chat of a table d'hôte: it is as likely to be falſe as true; but Languedocian biſhops are certainly not Engliſh ones. Monſieur de Rieuſe received me politely, and ſatisfied as many of my enquiries as he could; for he knew

knew little more of the Abbés huſbandry than common report, and what the farm itſelf told him. As to paved vineyards, there was no ſuch thing: the report muſt have taken riſe from a vineyard of Burgundy grapes, which the Abbé planted in a new manner; he ſet them in a curved form, in a foſs, covering them only with flints inſtead of earth; this ſucceeded well. I walked over the farm, which is beautifully ſituated, on the ſlope and top of a hill, which commands Beziers, its rich vale, its navigation, and a fine accompanyment of mountains.

Beziers has a fine promenade; and is becoming, they ſay, a favourite reſidence for the Engliſh, preferring the air to that of Montpellier. Take the road to Pezenas. It leads up a hill, which commands, for ſome time, a view of the Mediterranean. Through all this country, but particularly in the olive grounds, the cricket *(cicala)* makes a conſtant, ſharp, monotonous noiſe; a more odious companion on the road can hardly be imagined. Pezenas opens on a very fine country, a vale of ſix or eight leagues extent all cultivated; a beautiful mixture of vines, mulberries, olives, towns, and ſcattered houſes, with a great deal of fine lucerne; the whole bounded by gentle hills, cultivated to their tops. At ſupper, at the table d'hôte, we were waited on by a female without ſhoes or ſtockings, exquiſitely ugly, and diffuſing odours not of roſes: there were, however, a croix de St. Louis, and two or three mercantile-looking people, who prated with her very familiarly: at an ordinary of farmers, at the pooreſt and remoteſt market village in England, ſuch an animal would not be allowed by the landlord to enter his houſe; or by the gueſts their room.——32 miles.

The 25th. The road, in croſſing a valley to and from a bridge, is a magnificent walled cauſeway, more than a mile long, ten yards wide, and from eight to twelve feet high; with ſtone poſts on each ſide at every ſix yards—a prodigious work. I know nothing more ſtriking to a traveller than the roads of Languedoc: we have not in England a conception of ſuch exertions; they are ſplendid and ſuperb; and if I could free my mind of the recollection of the unjuſt taxation which pays them, I ſhould travel with admiration at the magnificence diſplayed by the States of this province. The police of theſe roads is however execrable—for I ſcarcely meet a cart but the driver is aſleep in it.

Taking the road to Montpellier, paſs through a pleaſing country; and by another immenſe walled cauſeway, twelve yards broad and three high, leading cloſe to the ſea. To Gigean, near Frontignan and Montbaſin, famous for their muſcat wines. Approach Montpellier; the environs, for near a league, are delicious, and more highly ornamented than any thing I have ſeen in France. Villas well built, clean, and comfortable, with every appearance of wealthy owners, are ſpread thickly through the country. They are, in general, pretty ſquare buildings; ſome very large. Montpellier, with the air rather of a great capital than of a provincial town, covers a hill that ſwells proudly to the view. But on entering it, you experience a diſappointment from narrow, ill-built, crooked ſtreets, but full of people, and apparently alive with buſineſs; yet there is no conſiderable manufacture in the place; the principal are verdigreaſe, ſilk handkerchiefs, blankets, perfumes, and *liqueurs*. The great object for a ſtranger to view is the promenade, or ſquare, for it partakes of both, called the Perou. There is a magnificent aqueduct on three tiers of arches for ſupplying the city with water, from a hill at a conſiderable diſtance; a very noble work; a *chateau d'eau* receives the water in a circular baſon, from which it falls into an external reſervoir, to ſupply the city, and the *jets d'eau* that cool the air of a garden below, the whole in a fine ſquare conſiderably elevated above the ſurrounding ground, walled in with a balluſtrade, and other mural decorations, and in the centre a good equeſtrian ſtatue of Louis XIV.

There is an air of real grandeur and magnificence in this uſeful work, that ſtruck me more than any thing at Verſailles. The view is alſo ſingularly beautiful. To the ſouth, the eye wanders with delight over a rich vale, ſpread with villas, and terminated by the ſea. To the north, a ſeries of cultivated hills. On one ſide, the vaſt range of the Pyrenees trend away till loſt in remoteneſs. On the other, the eternal ſnows of the Alps pierce the clouds. The whole view one of the moſt ſtupendous to be ſeen, when a clear ſky approximates theſe diſtant objects.——32 miles.

The 26th. The fair of Beaucaire fills the whole country with buſineſs and motion; meet many carts loaded; and nine diligences going or coming. Yeſterday and to-day the hotteſt I ever experienced; we had none like them in Spain—the flies much worſe than the heat.——30 miles.

The 27th. The amphitheatre of Niſmes is a prodigious work, which ſhews how well the Romans had adapted theſe edifices to the abominable uſes to which they were erected. The convenience of a theatre that could hold ſeventeen thouſand ſpectators without confuſion; the magnitude; the maſſive and ſubſtantial manner in which it is built without mortar, that has withſtood the attacks of the weather, and the worſe depredations of the barbarians in the various revolutions of ſixteen centuries, all ſtrike the attention forcibly.

I viewed the Maiſon Quarré laſt night; again this morning, and twice more in the day; it is beyond all compariſon the moſt light, elegant, and pleaſing building I ever beheld. Without any magnitude to render it impoſing; without any extraordinary magnificence to ſurprize, it rivets attention. There is a magic harmony in the proportions that charms the eye. One can fix on no particular part of pre-eminent beauty; it is one perfect whole of ſymmetry and grace. What an infatuation in modern architects, that can overlook the chaſte and elegant ſimplicity of taſte, manifeſt in ſuch a work, and yet rear ſuch piles of laboured foppery and heavineſs as are to be met with in France! The temple of Diana, as it is called, and the ancient baths, with their modern reſtoration, and the promenade, form part of the ſame ſcene, and are magnificent decorations of the city. I was, in relation to the baths, in ill luck, for the water was all drawn off, in order to clean them and the canals. The Roman pavements are ſingularly beautiful, and in high preſervation. My quarters at Niſmes were at the Louvre, a large, commodious, and excellent inn—the houſe was almoſt as much a fair from morning to night as Beaucaire itſelf could be. I dined and ſupped at the table d'hôte; the cheapneſs of theſe tables ſuits my finances, and one ſees ſomething of the manners of the people; we ſat down from twenty to forty at every meal, moſt motley companies of French, Italians, Spaniards, and Germans, with a Greek and Armenian; and I was informed, that there is hardly a nation in Europe or Aſia, that has not merchants at this great fair, chiefly for raw ſilk, of which many millions in value are ſold in four days: all the other commodities of the world are to be found there.

One circumſtance I muſt remark on this numerous table d'hôte, becauſe it has ſtruck me repeatedly, which is the taciturnity of the French. I came to the kingdom expecting to have my ears conſtantly fatigued with the infinite volubility and ſpirits of the people, of which ſo many perſons have written, ſitting, I ſuppoſe, by their Engliſh fireſides. At Montpellier, though fifteen perſons and ſome of them ladies were preſent, I found it impoſſible to make them break their inflexible ſilence with more than a monoſyllable, and the whole company ſat more like an aſſembly of tongue-tied quakers, than the mixed company of a people famous for loquacity. Here alſo, at Niſmes, with a different party at every meal it is the ſame; not a Frenchman will open his lips. To-day at dinner, hopeleſs of that nation, and fearing to loſe the uſe of an organ they had ſo little

little inclination to employ, I fixed myſelf by a Spaniard, and having been ſo lately in his country, I found him ready to converſe, and tolerably communicative; and indeed we had more converſation than thirty other perſons maintained among themſelves.

The 28th. Early in the morning to the Pont du Gard, through a plain covered with vaſt plantations of olives to the left, but much waſte rocky land. At the firſt view of that celebrated aqueduct, I was rather diſappointed, having expected ſomething of greater magnitude; but ſoon found the error: I was, on examining it more nearly, convinced that it poſſeſſed every quality that ought to make a ſtrong impreſſion. It is a ſtupendous work; the magnitude, and the maſſive ſolidity of the architecture, which may probably endure two or three thouſand years more, united with the undoubted utility of the undertaking, to give us a high idea of the ſpirit of exertion which executed it for the ſupply of a provincial town: the ſurpriſe, however, may ceaſe, when we conſider the nations enſlaved that were the workmen.—Returning to Niſmes, meet many merchants returning from the fair; each with a child's drum tied to his cloak-bag: my own little girl was too much in my head not to love them for this mark of attention to their children;—but why a drum? Have they not had enough of the military in a kingdom, where they are excluded from all the honours, reſpect, and emolument, that can flow from the ſword?—I like Niſmes much; and if the inhabitants be at all on a par with the appearance of their city, I ſhould prefer it for a reſidence to moſt, if not all the towns I have ſeen in France. The theatre however, is a capital point, in that Montpellier is ſaid to exceed it.——24 miles.

The 29th. Paſs ſix leagues of diſagreeable country to Sauve. Vines and olives. The chateau of Monſ. Sabbatier ſtrikes in this wild country; he has incloſed much with dry walls, planted many mulberries and olives, which are young, thriving, and well incloſed, yet the ſoil is ſo ſtony, that no earth is viſible; ſome of his walls are four feet thick, and one of them twelve thick and five high, whence it ſeems, he thinks moving the ſtones a neceſſary improvement, which I much queſtion. He has built three or four new farm houſes; I ſuppoſe he reſides on this eſtate for improving it. I hope he does not ſerve; that no moon-ſhine purſuit may divert him from a conduct honourable to himſelf, and beneficial to his country.—Leaving Sauve, I was much ſtruck with a large tract of land, ſeemingly nothing but huge rocks; yet moſt of it incloſed and planted with the moſt induſtrious attention. Every man has an olive, a mulberry, an almond, or a peach-tree, and vines ſcattered among them; ſo that the whole ground is covered with the oddeſt mixture of theſe plants and bulging rocks, that can be conceived. The inhabitants of this village deſerve encouragement for their induſtry; and if I were a French miniſter, they ſhould have it. They would ſoon turn all the deſerts around them into gardens. Such a knot of active huſhandmen, who turn their rocks into ſcenes of fertility, becauſe I ſuppoſe their own, would do the ſame by the waſtes, if animated by the ſame omnipotent principle. Dine at St. Hyppolite, with eight proteſtant merchants returning home to Rouverge, from the fair of Beaucaire; as we parted at the ſame time, we travelled together; and from their converſation, I learned ſome circumſtances of which I wanted to be informed; they told me alſo, that mulberries extend beyond Vigan, but then, and eſpecially about Milhaud, almonds take their place, and are in very great quantities.

My Rouverge friends preſſed me to paſs with them to Milhaud and Rodez, aſſuring me, that the cheapneſs of their province was ſo great, that it would tempt me to live ſome time amongſt them. That I might have a houſe at Milhaud, of four tolerable rooms on a floor furniſhed, for twelve louis a-year; and live in the utmoſt plenty with

with all my family, if I would bring them over, for a hundred louis a-year: that there were many families of nobleſſe, who ſubſiſted on fifty, and even on twenty-five a-year. Such anecdotes of cheapneſs are only curious when conſidered in a political light, as contributing on one hand to the welfare of individuals; and on the other, as contributing to the proſperity, wealth, and power of the kingdom; if I ſhould meet with many ſuch inſtances, and alſo with others directly contrary, it will be neceſſary to conſider them more at large.——30 miles.

The 30th. Going out of Gange, I was ſurpriſed to find by far the greateſt exertion in irrigation which I had yet ſeen in France; and then paſs by ſome ſteep mountains, highly cultivated in terraces. Much watering at St. Laurence. The ſcenery very intereſting to a farmer. From Gange, to the mountain of rough ground which I croſſed, the ride has been the moſt intereſting which I have taken in France; the efforts of induſtry the moſt vigorous; the animation the moſt lively. An activity has been here, that has ſwept away all difficulties before it, and has cloathed the very rocks with verdure. It would be a diſgrace to common ſenſe to aſk the cauſe: the enjoyment of property muſt have done it. Give a man the ſecure poſſeſſion of a bleak rock, and he will turn it into a garden; give him a nine year's leaſe of a garden, and he will convert it into a deſert. To Montadier over a rough mountain covered with box and lavender; it is a beggarly village, with an auberge that made me almoſt ſhrink. Some cut-throat figures were eating black bread, whoſe viſages had ſo much of the gallies that I thought I heard their chains rattle. I looked at their legs, and could not but imagine they had no buſineſs to be free. There is a ſpecies of countenance ſo horribly bad, that it is impoſſible to be miſtaken in one's reading. I was quite alone, and abſolutely without arms. Till this moment, I had not dreamt of carrying piſtols: I ſhould now have been better ſatisfied, if I had had them. The maſter of the auberge, who ſeemed firſt couſin to his gueſts, procured for me ſome wretched bread with difficulty, but it was not black.—No meat, no eggs, no legumes, and execrable wine: no corn for my mule; no hay; no ſtraw; no graſs: the loaf fortunately was large; I took a piece, and ſliced the reſt for my four-footed Spaniſh friend, who ate it thankfully, but the aubergiſte growled.—Deſcend by a winding and excellent road to Maudieres, where a vaſt arch is thrown acroſs the torrent. Paſs St. Maurice, and croſs a ruined foreſt amongſt fragments of trees. Deſcend three hours, by a moſt noble road hewn out of the mountain ſide to Lodeve, a dirty, ugly, ill built town, with crooked cloſe ſtreets, but populous, and very induſtrious.—Here I drank excellent light and pleaſing white wine, at 5s. a bottle.——36 miles.

The 31ſt. Croſs a mountain by a miſerable road, and reach Beg de Rieux, which ſhares with Carcaſſone, the fabric of Londrins, for the Levant trade.—Croſs much waſte to Beziers.—I met to-day with an inſtance of ignorance in a well dreſſed French merchant, that ſurprized me. He had plagued me with abundance of tireſome fooliſh queſtions, and then aſked for the third or fourth time what country I was of. I told him I was a Chineſe. How far off is that country?—I replied, two hundred leagues. *Deux cents lieux! Diable! c'eſt un grand chemin!* The other day a Frenchman aſked me, after telling him I was an Engliſhman, if we had trees in England?—I replied, that we had a few. Had we any rivers?—Oh, none at all. *Ah ma foi c'eſt bien triſte!* This incredible ignorance, when compared with the knowledge ſo univerſally diſſeminated in England, is to be attributed, like every thing elſe, to government.——40 miles.

Auguſt 1. Leave Beziers, in order to go to Capeſtan by the pierced mountain. Croſs the canal of Languedoc ſeveral times; and over many waſtes to Pleraville.

The

The Pyrenees now full to the left, and their roots but a few leagues off. At Carcaſſonne they carried me to a fountain of muddy water, and to a gate of the barracks; but I was better pleaſed to ſee ſeveral large good houſes of manufacturers, that ſhew wealth.——40 miles.

The 2d. Paſs a conſiderable convent, with a long line of front, and riſe to Fanjour. ——16 miles.

The 3d. At Mirepoix they are building a moſt magnificent bridge of ſeven flat arches, each of ſixty-four feet ſpan, which will coſt 1,800,000 livres, (78,750l.); it has been twelve years erecting, and will be finiſhed in two more. The weather for ſeveral days has been as fine as poſſible, but very hot; to-day the heat was ſo diſagreeable, that I reſted from twelve to three at Mirepoix; and found it ſo burning, that it was an effort to go half a quarter of a mile to view the bridge. The myriads of flies were ready to devour me, and I could hardly ſupport any light in the room. Riding fatigued me, and I enquired for a carriage of ſome ſort to carry me, while theſe great heats ſhould continue; I had done the ſame at Carcaſſone; but nothing like a cabriolet of any ſort was to be had. When it is recollected that that place is one of the moſt conſiderable manufacturing towns in France, containing fifteen thouſand people, and that Mirepoix is far from being a mean place, and yet not a voiture of any kind to be had, how will an Engliſhman bleſs himſelf for the univerſal conveniences that are ſpread through his own country, in which I believe there is not a town of fifteen hundred people in the kingdom where poſt chaiſes and able horſes are not to be had at a moment's warning! What a contraſt! This confirms the fact deducible from the little traffic on the roads even around Paris itſelf. Circulation is ſtagnant in France.—The heat was ſo great that I left Mirepoix diſordered with it: this was by far the hotteſt day that I ever felt. The hemiſphere ſeemed almoſt in a flame with burning rays that rendered it impoſſible to turn one's eyes within many degrees of the radiant orb that now blazed in the heavens.—Croſs another fine new bridge of three arches; and come to a woodland, the firſt I had ſeen for a great diſtance. Many vines about Pamiers, which is ſituated in a beautiful vale, upon a fine river. The place itſelf is ugly, ſtinking, and ill built; with an inn! Adieu, Monſ. Gaſcit; if fate ſend me to ſuch another houſe as thine—be it an expiation for my ſins!——28 miles.

The 4th. Upon leaving Amons, there is the extraordinary ſpectacle of a river iſſuing out of a cavern in a mountain of rock; on croſſing the hill you ſee where it enters by another cavern.—It pierces the mountain. Moſt countries, however, have inſtances of rivers paſſing under ground. At St. Gerond's go to the Croix Blanche, the moſt execrable receptacle of filth, vermin, impudence, and impoſition that ever exerciſed the patience, or wounded the feelings of a traveller. A withered hag, the dæmon of beaſtlineſs, preſides there. I laid, not reſted, in a chamber over a ſtable, whoſe effluviæ through the broken floor were the leaſt offenſive of the perfumes afforded by this hideous place.—It could give me nothing but two ſtale eggs, for which I paid, excluſive of all other charges, 20s. Spain brought nothing to my eyes that equalled this ſink, from which an Engliſh hog would turn with diſguſt. But the inns all the way from Niſmes are wretched, except at Lodeve, Gange, Carcaſſonne, and Mirepoix. St. Gerond's muſt have, from its appearance, four or five thouſand people. Pamiers near twice that number. What can be the circulating connection between ſuch maſſes of people and other towns and countries, that can be held together and ſupported by ſuch inns? There have been writers who look upon ſuch obſervations as ariſing merely from the petulance of travellers, but it ſhews their extreme ignorance.

norance. Such circumſtances are political data. We cannot demand all the books of France to be opened in order to explain the amount of circulation in that kingdom; a politician muſt therefore collect it from ſuch circumſtances as he can aſcertain; and among theſe, traffic on the great roads, and the convenience of the houſes prepared for the reception of travellers, tell us both the number and the condition of thoſe travellers; by which term I chiefly allude to the natives, who move on buſineſs or pleaſure from place to place; for if they be not conſiderable enough to cauſe good inns, thoſe who come from a diſtance will not, which is evident from the bad accommodations even in the high road from Calais to Rome. On the contrary, go in England to towns that contain fifteen hundred, two thouſand, or three thouſand people, in ſituations abſolutely cut off from all dependence, or almoſt the expectation of what are properly called travellers, yet you will meet with neat inns, well dreſſed and clean people keeping them, good furniture, and a refreſhing civility; your ſenſes may not be gratified, but they will not be offended; and if you demand a poſt chaiſe and a pair of horſes, the coſt of which is not leſs than 8ol. in ſpite of a heavy tax, it will be ready to carry you whither you pleaſe. Are no political concluſions to be drawn from this amazing contraſt? It proves that ſuch a population in England have connections with other places to the amount of ſupporting ſuch houſes. The friendly clubs of the inhabitants, the viſits of friends and relations, the parties of pleaſure, the reſort of farmers, the intercourſe with the capital and with other towns, form the ſupport of good inns; and in a country where they are not to be found, it is a proof that there is not the ſame quantity of motion; or that it moves by means of leſs wealth, leſs conſumption, and leſs enjoyment. In this journey through Languedoc, I have paſſed an incredible number of ſplendid bridges, and many ſuperb cauſeways. But this only proves the abſurdity and oppreſſion of government. Bridges that coſt 70 or 80,oool. and immenſe cauſeways to connect towns, that have no better inns than ſuch as I have deſcribed, appear to be groſs abſurdities. They cannot be made for the mere uſe of the inhabitants, becauſe one-fourth of the expence would anſwer the purpoſe of real utility. They are therefore objects of public magnificence, and conſequently for the eye of travellers. But what traveller, with his perſon ſurrounded by the beggarly filth of an inn, and with all his ſenſes offended, will not condemn ſuch inconſiſtencies, and will not wiſh for more comfort and leſs appearance of ſplendour?——30 miles.

The 5th. To St. Martory is an almoſt uninterrupted range of well incloſed and well cultivated country.—For an hundred miles paſt, the women generally without ſhoes, even in the towns; and in the country many men alſo.—The heat yeſterday and to-day as intenſe as it was before: there is no bearing any light in the rooms; all muſt be ſhut cloſe, or none are tolerably cool: in going out of a light room into a dark one, though both to the north, there is a very ſenſible coolneſs; and out of a dark one into a roofed balcony, is like going into an oven. I have been adviſed every day not to ſtir till four o'clock. From ten in the morning till five in the afternoon, the heat makes all exerciſe moſt uncomfortable; and the flies are a curſe of Egypt. Give me the cold and fogs of England, rather than ſuch a heat, ſhould it be laſting. The natives, however, aſſert, that this intenſity has now continued as long as it commonly does, namely, four or five days; and that the greateſt part even of the hotteſt months is much cooler than the weather is at preſent.—In two hundred and fifty miles diſtant, I have met on the road two cabriolets only, and three miſerable things like old Engliſh one horſe chaiſes; not one gentleman; though many merchants as they call themſelves, each with two or three cloak-bags behind him: a ſcarcity of travellers that is amazing.——28 miles.

The 6th. To Bagnere de Luchon, rejoining my friends, and not diſpleaſed to have a little reſt in the cool mountains, after ſo burning a ride.——28 miles.

The 10th. Finding our party not yet ready to ſet out on their return to Paris, I determined to make uſe of the time there was yet to ſpare, ten or eleven days, in a tour to Bagnere de Bigorre, to Bayonne, and to meet them on the way to Bourdeaux, at Auch. This being ſettled, I mounted my Engliſh mare, and took my laſt leave of Luchon.——28 miles.

The 11. Paſs a convent of Bernardine monks, who have a revenue of 30,000 livres. It is ſituated in a vale, watered by a charming chryſtal ſtream, and ſome hills, covered with oak, ſhelter it behind.—Arrive at Bagnere, which contains little worthy of notice, but it is much frequented by company on account of its waters. To the valley of Campan, of which I had heard great things, and which yet much ſurpaſſed my expectation. It is quite different from all the other vales I have ſeen in the Pyrenees or in Catalonia. The features and the arrangement novel. In general the richly cultivated ſlopes of thoſe mountains are thickly encloſed; this, on the contrary, is open. The vale itſelf is a flat range of cultivation and watered meadow, ſpread thickly with villages and ſcattered houſes. The eaſtern boundary is a rough, ſteep, and rocky mountain, and affords paſturage to goats and ſheep; a contraſt to the weſtern, which forms the ſingular feature of the ſcene. It is one noble ſheet of corn and graſs unencloſed, and interſected only by lines that mark the diviſion of properties, or the channels that conduct water from the higher regions for irrigating the lower ones; the whole is one matchleſs ſlope of the richeſt and moſt luxuriant vegetation. Here and there are ſcattered ſome ſmall maſſes of wood, which chance has grouped with wonderful happineſs for giving variety to the ſcene. The ſeaſon of the year, by mixing the rich yellow of ripe corn with the green of the watered meadows, added greatly to the colouring of the landſcape, which is upon the whole the moſt exquiſite for form and colour that my eye has ever been regaled with.—Take *the road to Lourde*, where is a caſtle on a rock, garriſoned for the mere purpoſe of keeping ſtate priſoners, ſent hither by lettres de cachet. Seven or eight are known to be here at preſent; thirty have been here at a time; and many for life—torn by the relentleſs hand of jealous tyranny from the boſom of domeſtic comfort; from wives, children, friends, and hurried for crimes unknown to themſelves—more probably for virtues—to languiſh in this deteſted abode of miſery—and die of deſpair. Oh, liberty! liberty!—and yet this is the mildeſt government of any conſiderable country in Europe, our own excepted. The diſpenſations of Providence ſeem to have permitted the human race to exiſt only as the prey of tyrants, as it has made pigeons for the prey of hawks.——35 miles.

The 12th. Pau is a conſiderable town, that has a parliament and a linen manufacture; but it is more famous for being the birth-place of Henry IV. I viewed the caſtle, and was ſhewn, as all travellers are, the room in which that amiable prince was born, and the cradle, the ſhell of a tortoiſe, in which he was nurſed. What an effect on poſterity have great and diſtinguiſhed talents! This is a conſiderable town, but I queſtion whether any thing would ever carry a ſtranger to it but its poſſeſſing the cradle of a favourite character.

Take the road to Moneng, and come preſently to a ſcene which was ſo new to me in France, that I could hardly believe my own eyes. A ſucceſſion of many well-built, tight, and comfortable farming cottages, built of ſtone, and covered with tiles; each having its little garden, encloſed by clipt thorn edges, with plenty of peach and other fruit trees, ſome fine oaks ſcattered in the hedges, and young trees nurſed up with ſo much care, that nothing but the foſtering attention of the owner could effect any thing

like it. To every houſe belongs a farm, perfectly well encloſed, with graſs borders mown and neatly kept around the corn fields, with gates to paſs from one encloſure to another. The men are all dreſſed with red caps, like the Highlanders of Scotland. There are ſome parts of England (where ſmall yeomen ſtill remain) that reſemble this country of Bearne; but we have very little that is equal to what I have ſeen in this ride of twelve miles from Pau to Moneng. It is all in the hands of little proprietors, without the farms being ſo ſmall as to occaſion a vicious and miſerable population. An air of neatneſs, warmth, and comfort breathes over the whole. It is viſible in their new-built houſes and ſtables; in their little gardens; in their hedges; in the courts before their doors; even in the coops for their poultry, and the ſties for their hogs. A peaſant does not think of rendering his pig comfortable, if his own happineſs hang by the thread of a nine years leaſe. We are now in Bearne, within a few miles of the cradle of Henry IV. Do they inherit theſe bleſſings from that good prince? The benignant genius of that good monarch ſeems to reign ſtill over the country; each peaſant has the fowl in the pot.——34 miles.

The 12th. The agreeable ſcene of yeſterday continues; many ſmall properties, and every appearance of rural happineſs. Navareen is a ſmall walled and fortified town, conſiſting of three principal ſtreets, which croſs at right angles, with a ſmall ſquare. From the ramparts there is the view of a fine country. The linen fabric ſpreads through it. To St. Palais the country is moſtly incloſed, and much of it with thorn hedges, admirably trained, and kept neatly clipped.——25 miles.

The 14th. Left St. Palais, and took a guide to conduct me four leagues to Anſpan. Fair day, and the place crowded with farmers; I ſaw the ſoup prepared for what we ſhould call the farmer's ordinary. There was a mountain of ſliced bread, the colour of which was not inviting; ample proviſion of cabbage, greaſe, and water, and about as much meat for ſome ſcores of people, as half a dozen Engliſh farmers would have eaten, and grumbled at their hoſt for ſhort commons.——26 miles.

The 15th. Bayonne is by much the prettieſt town I have ſeen in France; the houſes are not only well built of ſtone, but the ſtreets are wide, and there are many openings which, though not regular ſquares, have a good effect. The river is broad, and many of the houſes being fronted to it, the view of them from the bridge is fine. The promenade is charming; it has many rows of trees, whoſe heads join and form a ſhade delicious in this hot climate. In the evening, it was thronged with well dreſſed people of both ſexes; and the women, through all the country, are the handſomeſt I have ſeen in France. In coming hither from Pau, I ſaw what is very rare in that kingdom, clean and pretty country girls; in moſt of the provinces, hard labour deſtroys both perſon and complexion. The bloom of health on the cheeks of a well dreſſed country girl is not the worſt feature in any landſcape. I hired a chaloup for viewing the embarkment at the mouth of the river. By the water ſpreading itſelf too much, the harbour was injured; and government to contract it, has built a wall on the north bank a mile long, and another on the ſouth ſhore of half in length. It is from ten to twenty feet wide, and about twelve high, from the top of the baſe of rough ſtone, which extends twelve or fifteen feet more. Towards the mouth of the harbour, it is twenty feet wide, and the ſtones on both ſides crampt together with irons. They are now driving piles of pine ſixteen feet deep, for the foundation. It is on the whole, a work of great expence, magnificence, and utility.

The 16th. To Dax is not the beſt way to Auch, but I had a mind to ſee the famous waſte called Les Landes de Bourdeaux, of which I had long heard and read ſo much. I was informed, that by this route, I ſhould paſs through more than twelve leagues of

them. They reach almoſt to the gates of Bayonne; but broken by cultivated ſpots for a league or two. Theſe landes are ſandy tracts covered with pine trees, cut regularly for reſin. Hiſtorians report, that when the Moors were expelled from Spain, they applied to the court of France for leave to ſettle on and cultivate theſe landes; and that the court was much condemned for refuſing them. It ſeems to have been taken for granted, that they could not be peopled with French; and therefore ought rather to be given to Moors, than to be left waſte.—At Dax, there is a remarkably hot ſpring in the middle of the town. It is a very fine one, bubbling powerfully out of the ground in a large baſon, walled in; it is boiling hot; it taſtes like common water, and I was told that it was not impregnated with any mineral. The only uſe to which it is applied is for waſhing linen. It is at all ſeaſons of the ſame heat, and in the ſame quantity.——27 miles.

The 17th. Paſs a diſtrict of ſand as white as ſnow, and ſo looſe as to blow; yet it has oaks two feet in diameter, by reaſon of a bottom of white adheſive earth like marl. Paſs three rivers, the waters of which might be applied in irrigation, yet no uſe made of them. The Duke de Bouillon has vaſt poſſeſſions in theſe lands. A Grand Seigneur will at any time, and in any country, explain the reaſon of improveable land being left waſte.——29 miles.

The 18th. As dearneſs is, in my opinion, the general feature of all money exchanges in France, it is but candid to note inſtances to the contrary. At Airé, they gave me, at the Croix d'Or, ſoup, eels, ſweet-bread, and green peas, a pigeon, a chicken, and veal cutlets, with a deſert of biſcuits, peaches, nectarines, plums, and a glaſs of liqueur, with a bottle of good wine, all for 4 *ſ.* (2od.) oats for my mare 2o*ſ.* and hay 1o*ſ.* At the ſame price at St. Severe, I had a ſupper laſt night not inferior to it. Every thing at Airé ſeemed good and clean; and what is very uncommon, I had a parlour to eat my dinner in, and was attended by a neat well dreſſed girl. The laſt two hours to Airé it rained ſo violently, that my ſilk ſurtout was an inſufficient defence; and the old landlady was in no haſte to give me fire enough to be dried.——35 miles.

The 19th. Paſs Beek, which ſeems a flouriſhing little place, if we may judge by the building of new houſes. The Clef d'Or is a large, new, and good inn.

In the two hundred and ſeventy miles from Bagnere de Luchon to Auch, a general obſervation I may make is, that the whole, with very few exceptions, is incloſed; and that the farm-houſes are every where ſcattered, inſtead of being, as in many parts of France, collected in towns. I have ſeen ſcarcely any gentlemen's country-ſeats that ſeem at all modern; and in general, they are thin to a ſurpriſing degree. I have not met with one country equipage, nor any thing like a gentleman riding to ſee a neighbour. Scarcely a gentleman at all. At Auch, met by appointment my friends, on their return to Paris. The town is almoſt without manufactures or commerce, and is ſupported chiefly by the rents of the country. But they have many of the nobleſſe in the province, too poor to live here; ſome indeed ſo poor that they plough their own fields; and theſe may poſſibly be much more eſtimable members of ſociety than the fools and knaves who laugh at them.——31 miles.

The 20th. Paſs Fleuran, which contains many good houſes, and go through a populous country to Leitour, a biſhoprick, the dioceſan of which we left at Bagnere de Luchon. The ſituation is beautiful on the point of a ridge of hills.——20 miles.

The 22d. By Leyrac, through a fine country, to the Garonne, which we croſs by a ferry. This river is here a quarter of a mile broad, with every appearance of com-

merce. A large barge paſſed loaded with cages of poultry; of ſuch conſequence throughout the extent of this navigation is the conſumption of the great city of Bourdeaux! The rich vale continues to Agen, and is very highly cultivated; but has not the beauty of the environs of Leitour. If new buildings be a criterion of the flouriſhing ſtate of a place, Agen proſpers. The biſhop has raiſed a magnificent palace, the centre of which is in a good taſte; but the junction with the wings not equally happy.——23 miles.

The 23d. Paſs a rich and highly cultivated vale to Aguillon; much hemp, and every woman in the country employed on it. Many neat well-built farm-houſes on ſmall properties, and all the country very populous. View the chateau of the Duc d'Aguillon, which, being in the town, is badly ſituated, according to all rural ideas; but a town is ever an accompaniment of a chateau in France, as it was formerly in moſt parts of Europe; it ſeems to have reſulted from a feudal arrangement, that the Grand Seigneur might keep his ſlaves the nearer to his call, as a man builds his ſtables near his houſe. This edifice is a conſiderable one, built by the preſent duke; begun about twenty years ago, when he was exiled here during eight years. And, thanks to that baniſhment, the building went on nobly; the body of the houſe done, and the detached wings almoſt finiſhed. But as ſoon as the ſentence was reverſed, the duke went to Paris, and has not been here ſince, conſequently all now ſtands ſtill. It is thus that baniſhment alone will force the French nobility to execute what the Engliſh do for pleaſure—reſide upon and adorn their eſtates. There is one magnificent circumſtance, namely, an elegant and ſpacious theatre; it fills one of the wings. The orcheſtra is for twenty-four muſicians, the number kept, fed, and paid, by the duke when here. This elegant and agreeable luxury, which falls within the compaſs of a very large fortune, is known in every country in Europe except England; the poſſeſſors of great eſtates here preferring horſes and dogs very much before any entertainment a theatre can yield. To Tonnance.——25 miles.

The 24th. Many new and good country ſeats of gentlemen, well built, and ſet off with gardens, plantations, &c. Theſe are the effects of the wealth of Bourdeaux. Theſe people, like other Frenchmen, eat little meat; in the town of Leyrac, five oxen only are killed in a year; whereas an Engliſh town, with the ſame population, would conſume two or three oxen a week. A noble view towards Bourdeaux for many leagues, the river appearing in four or five places. Reach Langon, and drink of its excellent white wine.——32 miles.

The 25th. Paſs through Barſac, famous alſo for its wines. They are now ploughing with oxen between the rows of the vines, the operation which gave Tull the idea of horſe-hoeing corn. Great population, and country ſeats all the way. At Caſtres the country changes to an unintereſting flat. Arrive at Bourdeaux, through a continued village.——30 miles.

The 26. Much as I had read and heard of the commerce, wealth, and magnificence of this city, they greatly ſurpaſſed my expectations. Paris did not anſwer at all, for it is not to be compared to London; but we muſt not name Liverpool in competition with Bourdeaux. The grand feature here, of which I had heard moſt, anſwers the leaſt; I mean the quay, which is reſpectable only for length, and its quantity of buſineſs, neither of which, to the eye of a ſtranger, is of much conſequence, if devoid of beauty. The row of houſes is regular, but without either magnificence or beauty. It is a dirty, ſloping, muddy ſhore; parts without pavement, incumbered with filth and ſtones; barges lie here for loading and unloading the ſhips, which cannot approach to what ſhould be a quay. Here is all the dirt and diſagreeable circumſtances of trade,

without the order, arrangement, and magnificence of a quay. Barcelona is unique in this reſpect. When I preſumed to find fault with the buildings on the river, it muſt not be ſuppoſed that I include the whole; the creſcent which is in the ſame line is better. The *place royale*, with the ſtatue of Louis XV. in the middle, is a fine opening, and the buildings which form it regular and handſome. But the quarter of the *chapeau rouge* is truly magnificent, conſiſting of noble houſes, built, like the reſt of the city, of white hewn ſtone. It joins the *chateau trompette*, which occupies near half a mile of the ſhore. This fort is bought of the king, by a company of ſpeculators, who are now pulling it down with an intention of building a fine ſquare and many new ſtreets, to the amount of 1800 houſes. I have ſeen a deſign of the ſquare and the ſtreets, and it would, if executed, be one of the moſt ſplendid additions to a city that is to be ſeen in Europe. This great work ſtands ſtill at preſent through a fear of reſumptions. The theatre, built about ten or twelve years ago, is by far the moſt magnificent in France. I have ſeen nothing that approaches it. The building is inſulated, and fills up a ſpace of three hundred and ſix feet by one hundred and ſixty-five, one end being the principal front, containing a portico the whole length of it, of twelve very large Corinthian columns. The entrance from this portico is by a noble veſtibule, which leads not only to the different parts of the theatre, but alſo to an elegant oval concert-room, and ſaloons for walking and refreſhments. The theatre itſelf is of a vaſt ſize; in ſhape the ſegment of an oval. The eſtabliſhment of actors, actreſſes, ſingers, dancers, orcheſtra, &c. ſpeaks the wealth and luxury of the place. I have been aſſured, that from thirty to fifty louis a night have been paid to a favourite actreſs from Paris. Larrive, the firſt tragic actor of that capital, is now here, at 500 livres (21l. 12s. 6d.) a night, with two benefits. Dauberval, the dancer, and his wife (the Mademoiſelle Theodore of London) are retained as principal ballet-maſter and firſt female dancer, at a ſalary of 28,000 livres (1225l.). Pieces are performed every night, Sundays not excepted, as every where in France. The mode of living that takes place here among merchants is highly luxurious. Their houſes and eſtabliſhments are on expenſive ſcales. Great entertainments, and many ſerved on plate: high play is a much worſe thing;—and the ſcandalous chronicle ſpeaks of merchants keeping the dancing and ſinging girls of the theatre at ſalaries which ought to import no good to their credit. This theatre, which does ſo much honour to the pleaſures of Bourdeaux, was raiſed at the expence of the town, and coſt 270,000l. The new tide corn mill, erected by a company, is very well worth viewing. A large canal is digged and formed in maſonry of hewn ſtone, the walls four feet thick, leading under the building for the tide coming in, to turn the water wheels. It is then conducted in other equally well formed canals to a reſervoir; and when the tide returns it gives motion to the wheels again. Three of theſe canals paſs under the building for containing twenty-four pairs of ſtones. Every part of the work is on a ſcale of ſolidity and duration, admirably executed. The eſtimate of the expence is 8,000,000 livres (350,000l.); but I know not how to credit ſuch a ſum. How far the erection of ſteam engines to do the ſame buſineſs would have been found a cheaper method, I ſhall not enquire; but I ſhould apprehend that the common water-mills on the Garonne, which ſtart without ſuch enormous expences for their power, muſt in the common courſe of events ruin this company. The new houſes that are building in all quarters of the town, mark, too clearly to be miſunderſtood, the proſperity of the place. The ſkirts are every where compoſed of new ſtreets; with ſtill newer ones marked out, and partly built. Theſe houſes are in general ſmall, or on a middling ſcale, for inferior tradeſmen. They are all of white ſtone, and add, as they are finiſhed, much to the beauty of the city. I enquired into

th

the date of theſe new ſtreets, and found that four or five years were in general the period: that is to ſay, ſince the peace; and from the colour of the ſtone of thoſe ſtreets next in age, it is plain that the ſpirit of building was at a ſtop during the war. Since the peace they have gone on with great activity. What a ſatire on the government of the two kingdoms, to permit in one the prejudices of manufacturers and merchants, and in the other the inſidious policy of an ambitious court, to hurry the two nations into wars that check beneficial works, and ſpread ruin where private exertion was buſied in deeds of proſperity! The rent of houſes and lodgings riſes every day; they complain that the expences of living have increaſed in ten years full thirty per cent. There can hardly be a clearer proof of an advance in proſperity.

The commercial treaty with England being a ſubject too intereſting not to demand attention, we made the neceſſary enquiries. Here it is conſidered as a wiſe meaſure, that tends equally to the benefit of both countries.

We went twice to ſee Larrive perform his two capital parts of the Black Prince in Monſ. du Belloy's Piere le Cruel, and Philoctete, which gave me a very high idea of the French Theatre. The inns at this city are excellent; the hotel d'Angleterre and the Prince of Aſturias; at the latter we found every accommodation to be wiſhed, but with an inconſiſtence that cannot be too much condemned: we had very elegant apartments, and were ſerved on plate, yet the neceſſary-houſe the ſame temple of abomination that is to be met in a dirty village.

The 28th. Leave Bourdeaux; croſs the river by a ferry, which employs twenty-nine men and fifteen boats, and lets at 18,000 livres (787l.) a year. The view of the Garonne is very fine, appearing twice as broad as the Thames at London; and the number of large ſhips lying in it, makes it, I ſuppoſe, the richeſt water view that France has to boaſt. Hence to the Dordonne, a noble river, though much inferior to the Garonne; the ferry lets at 6000 livres. Reach Cavignac.——20 miles.

The 29th. To Barbeſieux, ſituated in a beautiful country, finely diverſified and wooded; the marquiſate, of which, with the chateau, belongs to the Duke de la Rochefoucald, whom we met here; he inherits this eſtate from the famous Louvois, the miniſter of Louis XIV. In theſe thirty-ſeven miles of country, lying between the great rivers Garonne, Dordonne, and Charente, and conſequently in one of the beſt parts of France for markets, the quantity of waſte land is ſurpriſing; it is indeed the predominant feature. Much of theſe waſtes belonged to the Prince de Soubiſe, who would not ſell any part of them. Thus it is whenever you ſtumble on a Grand Seigneur, even one who was worth millions, you are ſure to find his property a deſert. The Duke of Bouillon's and this Prince's are two of the greateſt properties in France; and all the ſigns I have yet ſeen of their greatneſs, are waſtes, landes, deſerts, fern, ling—Go to their reſidence, wherever it may be, and you would probably find them in the midſt of a foreſt, very well peopled with deer, wild boars, and wolves. Oh! if I were the legiſlator of France for a day, I would make ſuch great lords ſkip *! We ſupped with the Duke de la Rochefoucauld; the provincial aſſembly of Saintonge is ſoon to meet, and this nobleman, being the preſident, is waiting for their aſſembling.

The 30th. Through a chalk country, well wooded, though without incloſures, to Angoulême; the approach to that town is fine; the country around being beautiful with the fine river Charente, here navigable, flowing through it.——25 miles.

The 31ſt. Quitting Angoulême, paſs through a country almoſt covered with vines, and acroſs a noble wood belonging to the Ducheſs d'Anville, mother of the Duke de la

* I can aſſure the reader that theſe ſentiments were thoſe of the moment; the events that have taken place almoſt induced me to ſtrike many ſuch paſſages out, but it is fairer to all parties to leave them.

Rochefoucauld, to Verteul, a chateau of the ſame lady, built in 1459, where we found every thing that travellers could wiſh in a hoſpitable manſion. The Emperor Charles V. was entertained here by Anne de Polignac, widow of Francis II. Count de la Rochefoucauld, and that Prince, ſaid aloud "*n'avoir jamais été en maiſon qui ſentit mieux ſa grande vertu honnêteté & ſeigneurie que cella la.*"—It is excellently kept; in thorough repair, fully furniſhed, and all in order, which merits praiſe, conſidering that the family rarely are here for more than a few days in a year, having many other and more conſiderable ſeats in different parts of the kingdom. If this juſt attention to the intereſts of poſterity were more general, we ſhould not ſee the melancholy ſpectacle of ruined chateaus in ſo many parts of France. In the gallery is a range of portraits from the tenth century; by one of which it appears, that this eſtate came by a Mademoiſelle la Rochefoucauld, in 1470. The park, woods, and river Charente here are fine: the laſt abounds greatly in carp, tench, and perch. It is at any time eaſy to get from fifty to one hundred brace of fiſh that weigh from three to ten pound each: we had a brace of carp for ſupper, the ſweeteſt without exception, I ever taſted. If I pitched my tent in France, I ſhould chooſe it to be by a river that gave ſuch fiſh. Nothing provokes one ſo much in a country reſidence as a lake, a river, or the ſea within view of the windows, and a dinner every day without fiſh, which is ſo common in England.——27 miles.

September 1ſt. Paſs Caudec, Ruffec, Maiſons-Blanches, and Chaunay. At the firſt of theſe places, view a very fine flour-mill built by the late Count de Broglio, brother of the Marechal de Broglio, one of the ableſt and moſt active officers in the French ſervice. In his private capacity, his undertakings were of a national kind; this mill, an iron forge, and the project of a navigation, proved that he had a diſpoſition for every exertion that could, according to the prevalent ideas of the times, benefit his country; that is to ſay, in every way except the one in which it would have been effective—practical agriculture. This day's journey has been, with ſome exceptions, through a poor, dull, and diſagreeable country.——35 miles.

The 2d. Poitou, from what I ſee of it, is an unimproved, poor, and ugly country. It ſeems to want communication, demand, and activity of all kinds; nor does it, on an average, yield the half of what it might. The lower part of the province is much richer and better. Arrive at Poitiers, which is one of the worſt built towns I have ſeen in France; very large and irregular, and containing ſcarcely any thing worthy of notice, except the cathedral, which is well built, and very well kept. The fineſt thing by far in the town is the promenade, which is the moſt extenſive I have ſeen; it occupies a conſiderable ſpace of ground, with gravelled walks, &c. excellently kept.——12 miles.

The 3d. A white chalky country to Chateaurault, open, and thinly peopled, though not without country-ſeats. That town has ſome animation, by reaſon of its navigable river, which falls into the Loire. There is a conſiderable cutlery manufacture: we were no ſooner arrived, than our apartment was full of the wives and daughters of manufacturers, each with her box of knives, ſciſſars, toys, &c. and with ſo much civil ſolicitude to have ſomething bought, that had we wanted nothing it would have been impoſſible to let ſo much urgency prove vain. It is remarkable, as the fabrics made here are cheap, that there is ſcarcely any diviſion of labour in this manufacture; it is in the hands of diſtinct and unconnected workmen, who go through every branch on their own account, and without aſſiſtance, except from their families.——25 miles.

The 4th. Paſs a better country, with many chateaus, to Les Ormes, where we ſtopt to ſee the ſeat built by the late Count de Voyer d'Argenſon. This chateau is a large handſome edifice of ſtone, with two very conſiderable wings for offices and ſtrangers' apartments: the entrance is into a neat veſtibule, at the end of which is the ſaloon, a circular

circular marble room, extremely elegant and well furniſhed: in the drawing room are paintings of the four French victories of the war of 1744: in every apartment there is a ſtrong diſpoſition to Engliſh furniture and modes. This pleaſing reſidence belongs at preſent to the Count d'Argenſon. The late Count who built it formed with the preſent Duke of Grafton, in England, the ſcheme of a very agreeable party. The Duke was to go over with his horſes and pack of fox hounds, and live here for ſome months, with a number of friends. It originated in the propoſal to hunt French wolves with Engliſh fox-dogs. Nothing could be better planned than the ſcheme, for Les Ormes is large enough to have contained a numerous party; but the Count's death deſtroyed the plan. This is a ſort of intercourſe between the nobility of two kingdoms, which I am ſurpriſed does not take place ſometimes; it would vary the common ſcenes of life very agreeably, and be productive of ſome of the advantages of travelling in the moſt eligible way.——23 miles.

The 5th. Through a dead flat and unpleaſant country, but on the fineſt road I have ſeen in France—nor does it ſeem poſſible that any ſhould be finer; not ariſing from great exertions, as in Languedoc, but from being laid flat with admirable materials. Chateaus are ſcattered every where in this part of Touraine; but farm houſes and cottages thin, till you come in ſight of the Loire, the banks of which ſeem one continued village. The vale through which that river flows, may be three miles over; a dead level of burnt ruſſet meadow.

The entrance of Tours is truly magnificent, by a new ſtreet of large houſes, built of hewn white ſtone, with regular fronts. This fine ſtreet, which is wide, and with foot pavements on each ſide, is cut in a ſtrait line through the whole city to the new bridge, of fifteen flat arches, each of ſeventy-five feet ſpan. It is altogether a noble exertion for the decoration of a provincial town. Some houſes remain yet to be built, the fronts of which are done; ſome reverend fathers are ſatisfied with their old habitations, and do not chooſe the expence of filling up the elegant deſign of the Tours projectors; they ought, however, to be unrooſted if they will not comply, for fronts without houſes behind them have a ridiculous appearance. From the tower of the cathedral there is an extenſive view of the adjacent country; but the Loire, for ſo conſiderable a river, and for being boaſted as the moſt beautiful in Europe, exhibits ſuch a breadth of ſhoals and ſands as to be almoſt ſubverſive of beauty. In the chapel of the old palace of Louis XI. Les Pleſſis les Tours, are three pictures which deſerve the traveller's notice; a holy family, St. Catharine, and the daughter of Herod; they ſeem to be of the beſt age of Italian art. There is a very fine promenade here; long and admirably ſhaded by four rows of noble and lofty elms, which for ſhelter againſt a burning ſun can have no ſuperior; parallel with it is another on the rampart of the old walls, which looks down on the adjacent gardens; but theſe walks, of which the inhabitants have long boaſted, are at preſent objects of melancholy; the corporation has offered the trees to ſale, and I was aſſured they would be cut down the enſuing winter.—One would not wonder at an Engliſh corporation ſacrificing the ladies' walk for plenty of turtle, veniſon, and madeira; but that a French one ſhould have ſo little gallantry, is inexcuſable.

The 9th. The Count de la Rochefoucauld having a feveriſh complaint when he arrived here, which prevented our proceeding on the journey, it became the ſecond day a confirmed fever; the beſt phyſician of the place was called in, whoſe conduct I liked much, for he had recourſe to very little phyſick, but much attention to keep his apartment cool and airy; and ſeemed to have great confidence in leaving nature to throw off the malady that oppreſſed her. Who is it that ſays there is a great difference between a good phyſician and a bad one; yet very little between a good one and none at all?

Among

Among other excurſions, I took a ride on the banks of the Loire towards Saumur, and found the country the ſame as near Tours; but the chateaus not ſo numerous or good. Where the chalk hills advance perpendicularly towards the river, they preſent a moſt ſingular ſpectacle of uncommon habitations; for a great number of houſes are cut out of the white rock, fronted with maſonry, and holes cut above for chimnies, ſo that you ſometimes know not where the houſe is from which you ſee the ſmoke iſſuing. Theſe cavern-houſes are in ſome places in tiers one above another. Some with little ſcraps of gardens have a pretty effect. In general, the proprietors occupy them; but many are let at 10, 12, and 15 livres a year. The people I talked with ſeemed well ſatisfied with their habitations, as good and comfortable: a proof of the dryneſs of the climate. In England the rheumatiſm would be the chief inhabitant. Walked to the Benedictine convent of Marmoutier, of which the Cardinal de Rohan, at preſent here, is abbot.

The 10th. Nature, or the Tours doctor, having recovered the Count, we ſet forward on our journey. The road to Chanteloup is made on an embankment, that ſecures a large level tract from floods. The country more unintereſting than I could have thought it poſſible in the vicinity of a great river.—View Chanteloup, the magficent ſeat of the late Duke de Choiſeul. It is ſituated on a riſing ground, at ſome diſtance from the Loire, which in winter, or after great floods, is a fine object, but at preſent is ſcarcely ſeen. The ground-floor in front conſiſts of ſeven rooms: the dining-room of about thirty by twenty, and the drawing-room thirty by thirty-three: the library is ſeventy-two by twenty, fitted up by the preſent poſſeſſor, the Duke de Penthievre, with very beautiful tapeſtry from the Gobelins.——In the pleaſure-ground, on a hill commanding a very extenſive proſpect, is a Chineſe pagoda, one hundred and twenty feet high, built by the duke, in commemoration of the perſons who viſited him in his exile. On the walls of the firſt room in it their names are engraven on marble tablets. The number and rank of the perſons do honour to the duke and to themſelves. The idea was a happy one. The foreſt you look down on from this building is very extenſive; they ſay eleven leagues acroſs: ridings are cut pointing to the pagoda; and when the duke was alive, theſe glades had the miſchievous animation of a vaſt hunt, ſupported ſo liberally as to ruin the maſter of it, and transferred the property of this noble eſtate and reſidence from his family to the laſt hands I ſhould wiſh to ſee it in—a prince of the blood. Great lords love too much an environ of foreſts, boars, and huntſmen, inſtead of marking their reſidence by the accompaniment of neat and well cultivated farms, clean cottages, and happy peaſants. In ſuch a method of ſhewing their magnificence, rearing foreſts, gilding domes, or bidding aſpiring columns riſe, might be wanted; but they would have, inſtead of them, erections of comfort, eſtabliſhments of eaſe, and plantations of felicity: and their harveſt, inſtead of the fleſh of boars, would be in the voice of cheerful gratitude—they would ſee public proſperity flouriſh on its beſt baſis of private happineſs. —As a farmer, there is one feature which ſhews the Duke de Choiſeul had ſome merit: he built a noble cow-houſe; a platform leads along the middle, between two rows of mangers, with ſtalls for ſeventy-two, and another apartment, not ſo large, for others, and for calves. He imported one hundred and twenty very fine Swiſs cows, and viſited them with his company every day, as they were kept conſtantly tied up. To this I may add the beſt built ſheep-houſe I have ſeen in France: and I thought I ſaw from the pagoda part of the farm better laid out and ploughed than common in the country, ſo that he probably imported ſome ploughmen.—This has merit in it; but it was all the merit of baniſhment. Chanteloup would neither have been built, nor decorated,

nor furniſhed, if the duke had not been exiled. It was the ſame with the Duke d'Aguillon. Theſe miniſters would have abominated the country, inſtead of rearing ſuch edifices, or forming ſuch eſtabliſhments, if they had not both been ſent from Verſailles. View the manufacture of ſteel at Amboiſe, eſtabliſhed by the Duke de Choiſeul. Vineyards the chief feature of agriculture.——37 miles.

The 11th. To Blois, an old town, prettily ſituated on the Loire, with a good ſtone bridge of eleven arches. We viewed the caſtle, for the hiſtorical monument it affords that has rendered it ſo famous. They ſhew the room where the council aſſembled, and the chimney in it before which the Duke of Guiſe was ſtanding when the king's page came to demand his preſence in the royal cloſet: the door he was entering when ſtabbed: the tapeſtry he was in the act of turning aſide: the tower where his brother the cardinal ſuffered; with a hole in the floor into the dungeon of Louis XI. of which the guide tells many horrible ſtories, in the ſame tone, from having told them ſo often, in which the fellow in Weſtminſter Abbey gives his monotonous hiſtory of the tombs. The beſt circumſtance attending the view of the ſpots, or the walls within which great, daring, or important actions have been performed, is the impreſſion they make on the mind, or rather on the heart of the ſpectator, for it is an emotion of feeling, rather than an effort of reflection. The murders, or political executions perpetrated in this caſtle, though not unintereſting, were inflicted on, and cauſed by men who command neither our love, nor our veneration. The character of the period, and of the men that figured in it, were alike diſguſting. Bigotry and ambition, equally dark, inſidious, and bloody, allow no feelings of regret. Quit the Loire, and paſs to Chambord. The quantity of vines is great; they have them very flouriſhing on a flat poor blowing ſand. How well ſatisfied would my friend Le Blanc be if his pooreſt ſands at Cavenham gave him a hundred dozen of good wine per acre per annum! See at one *coup d'œil* two thouſand acres of them. View the royal chateau of Chambord, built by that magnificent prince Francis I. and inhabited by the late Marechal de Saxe. I had heard much of this caſtle, and it more than anſwered my expectation. It gives a great idea of the ſplendour of that prince. Comparing the centuries, and the revenues of Louis XIV. and Francis I. I prefer Chambord infinitely to Verſailles. The apartments are large, numerous, and well contrived. I admired the ſtone ſtair-caſe in the centre of the houſe, which, being in a double ſpiral line, contains two diſtinct ſtair-caſes, one above another, by which means people are going up and down at the ſame time, without ſeeing each other. The four apartments in the attic, with arched ſtone roofs, were in no mean taſte. One of theſe Count Saxe turned into a neat well contrived theatre. We were ſhewn the apartment which that great ſoldier occupied, and the room in which he died. Whether in his bed or not is yet a problem for anecdote hunters to ſolve. A report not uncommon in France was, that he was run through the heart in a duel with the Prince of Conti, who came to Chambord for that purpoſe; and great care was taken to conceal it from the king (Louis XV.), who had ſuch a friendſhip for the marechal, that he would certainly have driven the prince out of the kingdom. There are ſeveral apartments modernized, either for the marechal or for the governors that have reſided here ſince. In one there is a fine picture of Louis XIV. on horſeback. Near the caſtle are the barracks for the regiment of fifteen hundred horſe, formed by Marechal de Saxe, and which Louis XV. gave him, by appointing them to garriſon Chambord while their colonel made it his reſidence. He lived here in great ſplendour, and highly reſpected by his ſovereign, and the whole kingdom.—The ſituation of the caſtle is bad; it is low, and without the leaſt proſpect that is intereſting; indeed the whole country is ſo flat that a high ground

ground is hardly to be found in it. From the battlements we ſaw the environs, of which the park or foreſt forms three-fourths; it contains within a wall about twenty thouſand arpents, and abounds with all ſorts of game to a degree of profuſion. Great tracks of this park are waſte or under heath, &c. or at leaſt a very imperfect cultivation; I could not help thinking, that if the King of France ever formed the idea of eſtabliſhing one complete and perfect farm under the turnip culture of England, here is the place for it. Let him aſſign the chateau for the reſidence of the director and all his attendants; and the barracks, which are now applied to no uſe whatever, for ſtalls for cattle, and the profits of the wood would be ſufficient to ſtock and ſupport the whole undertaking. What compariſon between the utility of ſuch an eſtabliſhment, and that of a much greater expence applied here at preſent for ſupporting a wretched haras (ſtud), which has not a tendency but to miſchief! I may recommend ſuch agricultural eſtabliſhments, but they never were made in any country, and never will be, till mankind are governed on principles abſolutely contrary to thoſe which prevail at preſent—until ſomething more be thought requiſite for a national huſbandry than academies and memoirs.——35 miles.

The 12th. In two miles from the park wall regain the high road on the Loire. In diſcourſe with a vigneron, we were informed that it froze this morning hard enough to damage the vines; and I may obſerve, that for four or five days paſt the weather has been conſtantly clear, with a bright ſun, and ſo cold a north-eaſt wind as to reſemble much our cold clear weather in England in April; we have all our great coats on the whole day. Dine at Clarey, and view the monument of that able but bloody tyrant Louis XI. in white marble; he is repreſented in a kneeling poſture, praying forgiveneſs, I ſuppoſe, which doubtleſs was promiſed him by his prieſts for his baſeneſſes and his murders. Reach Orleans——30 miles.

The 13th. Here my companions wanting to return as ſoon as poſſible to Paris, took the direct road thither; but, having travelled it before, I preferred that by Petivier in the way to Fontainbleau. One motive for my taking this road was its paſſing by Denainvilliers, the ſeat of the late celebrated Monſ. du Hamel, where he made thoſe experiments in agriculture which he has recited in many of his works. At Petivier I was juſt by it and walked thither for the pleaſure of viewing grounds I had read of ſo often, conſidering them with a ſort of claſſic reverence. His *homme d'affaire*, who conducted the farm being dead, I could not get many particulars to be depended upon. Monſ. Fougeroux, the preſent poſſeſſor, was not at home, or I ſhould doubtleſs have had all the information I wiſhed. I examined the ſoil, a principal point in all experiments, when concluſions are to be drawn from them; and I took alſo notes of the common huſbandry. Learning from the labourer who attended me that the drill-ploughs, &c. were yet in being, on a loft in one of the offices, I viewed them with pleaſure, and found them, as well as I can remember, very accurately repreſented in the plates which their ingenious author has given. I was glad to find them laid up in a place out of common traffic, where they may remain ſafe till ſome other farming traveller, as enthuſiaſtic as myſelf, may view the venerable remains of a uſeful genius. Here is a ſtove and bath for drying wheat, which he has deſcribed alſo. In an incloſure behind the houſe is a plantation of various curious exotic trees, finely grown, alſo ſeveral rows of aſh, elm, and poplar along the roads, near the chateau, all planted by Monſ. du Hamel. It gave me ſtill greater pleaſure to find that Denainvilliers is not an inconſiderable eſtate. The lands extenſive; the chateau reſpectable; with offices, gardens, &c. that prove it the reſidence of a man of fortune; from which it appears, that this indefatigable author, however he might have failed in ſome of his purſuits,

met with that reward from his court which did it credit to beſtow; and that he was not, like others, left in obſcurity to the ſimple rewards which ingenuity can confer on itſelf. Four miles before Malſherbs a fine plantation of a row of trees on each ſide the road begins, formed by Monſ. de Malſherbs, and is a ſtriking inſtance of attention to the decorating of an open country. More than two miles of them are mulberries. They join his other noble plantations at Malſherbs, which contain a great variety of the moſt curious trees that have been introduced in France.——36 miles.

The 14th. After paſſing three miles through the foreſt of Fontainbleau, arrive at that town, and view the royal palace, which has been ſo repeatedly added to by ſeveral kings, that the ſhare of Francis I. its original founder, is not eaſily aſcertained. He does not appear to ſuch advantage as at Chambord. This has been a favourite with the Bourbons, from there having been ſo many Nimrods of that family. Of the apartments which are ſhewn here, the King's, the Queen's, Monſieur's, and Madame's, are the chief. Gilding ſeems the prevalent decoration: but in the queen's cabinet it is well and elegantly employed. The painting of that delicious little room is exquiſite; and nothing can exceed the extremity of ornament that is here with taſte beſtowed. The tapeſtries of Beauvais and the Gobelins are ſeen in this palace to great advantage. I liked to ſee the gallery of Francis I. preſerved in its ancient ſtate, even to the andirons in the chimney, which are thoſe that ſerved that monarch. The gardens are nothing; and the great canal, as it is called, not to be compared with that at Chantilly. In the pond that joins the palace are carp as large and as tame as the Prince of Condé's. The landlord of the inn at Fontainbleau thinks that royal palaces ſhould not be ſeen for nothing; he made me pay 10 livres for a dinner, which would have coſt me not more than half the money at the ſtar and garter at Richmond. Reach Meulan.——34 miles.

The 15th. Croſs, for a conſiderable diſtance, the royal oak foreſt of Senár.—About Montgeron, all open fields, which produce corn and partridges to eat it, for the number is enormous. There is on an average a covey of birds on every two acres, beſides favourite ſpots, where they abound much more. At St. George the Seine is a much more beautiful river than the Loire. Enter Paris once more, with the ſame obſervation I made before, that there is not one-tenth of the motion on the roads around it that there is around London. To the hotel de la Rochefoucauld.——20 miles.

The 16th. Accompanied the Count de la Rochefoucauld to Liancourt.——38 miles.

I went thither on a viſit for three or four days; but the whole family contributed ſo generally to render the place in every reſpect agreeable, that I ſtaid more than three weeks. At about half a mile from the chateau is a range of hill that was chiefly a neglected waſte: the Duke of Liancourt has lately converted this into a plantation, with winding walks, benches, and covered ſeats, in the Engliſh ſtile of gardening. The ſituation is very fortunate. Theſe ornamented paths follow the edge of the declivity to the extent of three or four miles. The views they command are every where pleaſing, and in ſome places great. Nearer to the chateau the Ducheſs of Liancourt has built a menagerie and dairy in a pleaſing taſte. The cabinet and ante-room are very pretty; the ſaloon elegant, and the dairy entirely conſtructed of marble. At a village near Liancourt, the duke has eſtabliſhed a manufacture of linen and ſtuffs mixed with thread and cotton, which promiſes to be of conſiderable utility; there are twenty-five looms employed, and preparations making for more. As the ſpinning for theſe looms is alſo eſtabliſhed, it gives employment to great numbers of hands who

were idle, for they have no ſort of manufacture in the country, though it is populous. Such efforts merit great praiſe. Connected with this is the execution of an excellent plan of the duke's for eſtabliſhing habits of induſtry in the riſing generation. The daughters of the poor people are received into an inſtitution to be educated to uſeful induſtry; they are inſtructed in their religion, taught to write and read, and to ſpin cotton; are kept till marriageable, and then a regulated proportion of their earnings given them as a marriage portion. There is another eſtabliſhment of which I am not ſo good a judge; it is for training the orphans of ſoldiers to be ſoldiers themſelves. The Duke of Liancourt has raiſed ſome conſiderable buildings for their accommodation, well adapted to the purpoſe. The whole is under the ſuperintendance of a worthy and intelligent officer, Monſieur le Roux, captain of dragoons, and Croix de St. Louis, who examines every thing himſelf. There are at preſent one hundred and twenty boys, all dreſſed in uniform.—My ideas have all taken a turn which I am too old to change; I ſhould have been better pleaſed to have ſeen one hundred and twenty lads educated to the plough, in habits of culture ſuperior to the preſent; but certainly the eſtabliſhment is humane, and the conduct of it excellent.

The ideas I had formed, before I came to France, of a country reſidence in that kingdom, I found at Liancourt to be far from correct. I expected to find it a mere transfer of Paris to the country, and that all the burthenſome forms of a city were preſerved, without its pleaſures: but I was deceived: the mode of living, and the purſuits, approach much nearer to the habits of a great nobleman's houſe in England, than would commonly be conceived. A breakfaſt of tea for thoſe who choſe to repair to it; riding, ſporting, planting, gardening, till dinner, and that not till half after two o'clock, inſtead of their old faſhioned hour of twelve; muſic, cheſs, and the other common amuſements of a rendezvous-room, with an excellent library of ſeven or eight thouſand volumes, were well calculated to make the time paſs agreeably; and to prove that there is a great approximation in the modes of living at preſent in the different countries of Europe. Amuſements, in truth, ought to be numerous within doors; for in ſuch a climate, none are to be depended on without: the rain that has fallen here is hardly credible. I have, for five-and-twenty years paſt, remarked in England, that I never was prevented by rain from taking a walk every day without going out while it actually rains; it may fall heavily for many hours; but a perſon who watches an opportunity gets a walk or a ride. Since I have been at Liancourt, we have had three days in ſucceſſion of ſuch inceſſantly heavy rain, that I could not go an hundred yards from the houſe to the duke's pavilion, without danger of being quite wet. For ten days more rain fell here, I am confident, had there been a gauge to meaſure it, than ever fell in England in thirty. The preſent faſhion in France, of paſſing ſome time in the country is new; at this time of the year, and for many weeks paſt, Paris is, comparatively ſpeaking, empty. Every body who has a country-ſeat is at it; and ſuch as have none viſit others who have. This remarkable revolution in the French manners is certainly one of the beſt cuſtoms they have taken from England; and its introduction was effected the eaſier, being aſſiſted by the magic of Rouſſeau's writings. Mankind are much indebted to that ſplendid genius, who, when living, was hunted from country to country, to ſeek an aſylum, with as much venom as if he had been a mad dog; thanks to the vile ſpirit of bigotry, which has not yet received its death's wound. Women of the firſt faſhion in France are now aſhamed of not nurſing their own children; and ſtays are univerſally proſcribed from the bodies of the poor infants, which were for ſo many ages tortured in them, as they are ſtill in Spain. The country

reſidence

reſidence may not have effects equally obvious; but they will be no leſs ſure in the end, and in all reſpects beneficial to every claſs in the ſtate.

The duke of Liancourt being preſident of the provincial aſſembly of the election of Clermont, and paſſing ſeveral days there in buſineſs, aſked me to dine with the aſſembly, as he ſaid there were to be ſome conſiderable farmers preſent. Theſe aſſemblies were to me intereſting to ſee. I accepted the invitation with pleaſure. Three conſiderable farmers, renters, not proprietors of land, were members, and preſent. I watched their carriage narrowly, to ſee their behaviour in the preſence of a great lord of the firſt rank, conſiderable property, and high in royal favour; and it was with pleaſure that I found them behaving with becoming eaſe and freedom, and though modeſt, and without any thing like flippancy, yet without any obſequiouſneſs offenſive to Engliſh ideas. They ſtarted their opinions freely, and adhered to them with becoming confidence. A more ſingular ſpectacle was to ſee two ladies preſent at a dinner of this ſort, with five or ſix-and-twenty gentlemen; ſuch a thing could not happen in England. To ſay that the French manners, in this reſpect, are better than our own, is the aſſertion of an obvious truth. If the ladies be not preſent at meetings where the converſation has the greateſt probability of turning on ſubjects of more importance than the frivolous topics of common diſcourſe, the ſex muſt either remain on the one hand in ignorance, or on the other, be filled with the foppery of education, learned, affected, and forbidding. The converſation of men, not engaged in trifling purſuits, is the beſt ſchool for the education of a woman.

The political converſation of every company I have ſeen has turned much more on the affairs of Holland than on thoſe of France. The preparations going on for a war with England are in the mouths of all the world; but the finances of France are in ſuch a ſtate of derangement, that the people beſt informed aſſert a war to be impoſſible; the Marquis of Verac, the late French ambaſſador at the Hague, who was ſent thither, as the Engliſh politicians aſſert, expreſsly to bring about a revolution in the government, has been at Liancourt three days. It may eaſily be ſuppoſed, that he is cautious in what he ſays in ſuch a mixed company; but it is plain enough, that he is well perſuaded that that revolution, change, or leſſening the Stadtholder's power; that plan, in a word, whatever it was, for which he negociated in Holland, had for ſome time been matured and ready for execution, almoſt without a poſſibility of failure, had the Count de Vergennes conſented, and not ſpun out the buſineſs by refinement on refinement, to make himſelf the more neceſſary to the French cabinet; and it unites with the idea of ſome ſenſible Dutchmen, with whom I have converſed on the ſubject.

During my ſtay at Liancourt, my friend Lazowſki accompanied me on a little excurſion of two days to Ermenonville, the celebrated ſeat of the Marquis de Girardon. We paſſed by Chantilly to Morefountain, the country-ſeat of Monſieur de Morefountain, *prevoſt des merchands* of Paris; the place has been mentioned as decorated in the Engliſh ſtyle. It conſiſts of two ſcenes; one a garden of winding walks, and ornamented with a profuſion of temples, benches, grottos, columns, ruins, and I know not what; I hope the French who have not been in England, do not conſider this as the Engliſh taſte. It is in fact as remote from it as the moſt regular ſtyle of the laſt age. The water view is fine. There is a gaiety and cheerfulneſs in it that contraſt well with the brown and unpleaſing hills that ſurround it, and which partake of the waſte character of the worſt part of the ſurrounding country. Much has been done here; and it wants but few additions to be as perfect as the ground admits.

Reach

Reach Ermenonville, through another part of the Prince of Condé's foreſt, which joins the ornamented grounds of the Marquis Girardon. This place, after the reſidence and death of the perſecuted but immortal Rouſſeau, whoſe tomb every one knows is here, became ſo famous as to be reſorted to very generally. It has been deſcribed, and plates publiſhed of the chief views; to enter into a particular deſcription would therefore be tireſome; I ſhall only make one or two obſervations, which I do not recollect have been touched on by others. It conſiſts of three diſtinct water ſcenes; or of two lakes and a river. We were firſt ſhewn that which is ſo famous for the ſmall iſle of poplars, in which repoſes all that was mortal of that extraordinary and inimitable writer. This ſcene is as well imagined, and as well executed as could be wiſhed. The water is between forty and fifty acres; hills riſe from it on both ſides, and it is ſufficiently cloſed in by tall wood at both ends, to render it ſequeſtered. The remains of departed genius ſtamp a melancholy idea, from which decoration would depart too much, and accordingly there is little. We viewed the ſcene in a ſtill evening. The declining ſun threw a lengthened ſhade on the lake, and ſilence ſeemed to repoſe on its unruffled boſom; as ſome poet ſays, I forget who. The worthies to whom the temple of philoſophers is dedicated, and whoſe names are marked on the columns, are Newton, *Lucem.*—Deſcartes, *Nil in rebus inane.*—Voltaire, *Ridiculum.*—Rouſſeau, *Naturam.*—And on another unfiniſhed column, *Quis hoc perficiet?* The other lake is larger; it nearly fills the bottom of the vale, around which are ſome rough, rocky, wild, and barren ſand hills; either broken or ſpread with heath; in ſome places wooded, and in others ſcattered thinly with junipers. The character of the ſcene is that of wild and undecorated nature, in which the hand of art was meant to be concealed as much as was conſiſtent with eaſe of acceſs. The laſt ſcene is that of a river, which is made to wind through a lawn, receding from the houſe, and broken by wood; the ground is not fortunate; it is too dead a flat, and no where viewed to much advantage.

From Ermenonville we went, the morning after, to Braſſeuſe, *the ſeat of* Madame du Pont, ſiſter of the Ducheſs of Liancourt. What was my ſurpriſe at finding this Viſcounteſs a great farmer! A French lady, young enough to enjoy all the pleaſures of Paris, living in the country, and minding her farm, was an unlooked-for ſpectacle. She has probably more lucerne than any other perſon in Europe—two hundred and fifty arpents. She gave me, in a moſt unaffected and agreeable manner, intelligence about her lucerne and dairy; but of that more elſewhere. Returned to Liancourt by Pont, where there is a handſome bridge of three arches, the conſtruction uncommon, each pier conſiſting of four pillars, with a towing-path under one of the arches for the barge-horſes, the river being navigable.

Amongſt the morning amuſements I partook at Liancourt was *la chaſſe*. In deer ſhooting, the ſportſmen place themſelves at diſtances around a wood, then beat it, and ſeldom more than one in a company gets a ſhot; it is more tedious than is eaſily conceived; like angling, inceſſant expectation, and perpetual diſappointment. Partridge and hare ſhooting are almoſt as different from that of England. We took this diverſion in the fine vale of Catnoir, five or ſix miles from Liancourt; arranging ourſelves in a file at about thirty yards from perſon to perſon, and each with a ſervant and a loaded gun, ready to preſent when his maſter fires; thus we marched acroſs and acroſs the vale, treading up the game. Four or five brace of hares, and twenty brace of partridges were the ſpoils of the day. I like this mode of ſhooting but little better than waiting for deer. The beſt circumſtance to me of exerciſe in company (it was not ſo once) is the feſtivity of the dinner at the cloſe of the day. To enjoy this, it muſt not be puſhed to great fatigue. Good ſpirits, after violent exerciſe, are

always the affectation of ſilly young folks (I remember being that ſort of fool myſelf when I was young), but with ſomething more than moderate, the exhilaration of body is in uniſon with the flow of temper, and agreeable company is then delicious. On ſuch days as theſe we were too late for the regular dinner, and had one by ourſelves, with no other dreſſing than the refreſhment of clean linen; and theſe were not the repaſts when the ducheſs's champaigne had the worſt flavour. A man is a poor creature who does not drink a little too much on ſuch occaſions: *mais prenez-y-garde:* repeat it often; and you may make it a mere drinking party, the luſtre of the pleaſure fades, and you become what was an Engliſh fox hunter. One day while we were thus dining *à l'Anglois*, and drinking the plough, the chace, and I know not what, the Ducheſs of Liancourt a d ſome of her ladies came in ſport to ſee us. It was a moment for them to have betrayed ill-nature in the contempt of manners not French, which they might have endeavoured to conceal under a laugh;—but nothing of this; it was a good humoured curioſity; a natural inclination to ſee others pleaſed and in ſpirits. *Ils ont été de grands chaſſeurs aujourd'hui*, ſaid one. *Oh! ils s'applaudiſſent de leurs exploits.* Do they drink the gun? ſaid another. *Leurs maitreſſes certainement*, added a third. *J'aime à les voir en gaieté; il y a quelque choſe d'aimable dans tout ceci.* To note ſuch trifles may ſeem ſuperfluous to many; but what is life when trifles are withdrawn? They mark the temper of a nation better than objects of importance. In the moments of council, victory, flight, or death, mankind, I ſuppoſe, are nearly the ſame. Trifles diſcriminate better, and the number is infinite that gives me an opinion of the good temper of the French. I am fond neither of a man nor a recital that can appear only on ſtilts, and dreſſed in holiday geers. It is every day feelings that decide the colour of our lives; and he who values them the moſt plays the beſt for the ſtake of happineſs. But it is time to quit Liancourt, which I do with regret. Take leave of the good old Ducheſs d'Eſtiſſac, whoſe hoſpitality and kindneſs ought ever to be remembered.——51 miles.

The 9th, 10th, and 11th. Return by Beauvais and Pontoiſe, and enter Paris for the fourth time, confirmed in the idea that the roads immediately leading to that capital are deſerts, comparatively ſpeaking, with thoſe of London. By what means can the connection be carried on with the country? The French muſt be the moſt ſtationary people upon earth, when in a place they muſt reſt without a thought of going to another; or the Engliſh muſt be the moſt reſtleſs; and find more pleaſure in moving from one place to another, than in reſting to enjoy life in either. If the French nobility went only to their country ſeats when exiled thither by the court, the roads could not be more ſolitary.——25 miles.

The 12th. My intention was to take lodgings; but on arriving at the hotel de la Rochefoucauld, I found that my hoſpitable ducheſs was the ſame perſon at the capital as in the country; ſhe had ordered an apartment to be ready for me. It grows ſo late in the ſeaſon, that I ſhall make no other ſtay here than what will be neceſſary for viewing public buildings. This will unite well enough with delivering ſome letters I brought to a few men of ſcience; and it will leave me the evenings for the theatres, of which there are many in Paris. In throwing on paper a rapid *coup d'œil* of what I ſee of a city, ſo well known in England, I ſhall be apt to delineate my own ideas and feelings, perhaps more than the objects themſelves; and be it remembered, that I profeſs to dedicate this careleſs itinerary to trifles, much more than to objects that are of real conſequence. From the tower of the cathedral, the view of Paris is complete. It is a vaſt city, even to the eye that has ſeen London from St. Paul's; a circular form gives an advantage to Paris; but a much greater is the atmoſphere. It is now ſo clear, that one

one would ſuppoſe it the height of ſummer: the clouds of coal-ſmoke that envelope London, always prevent a diſtinct view of that capital, but I take it to be one-third at leaſt larger than Paris. The buildings of the parliament houſe are disfigured by a gilt and taudry gate, and a French roof. The hotel des Monoies is a fine building; and the façade of the Louvre one of the moſt elegant in the world, becauſe they have (to the eye) no roofs; in proportion as a roof is ſeen, a building ſuffers. I do not recollect one edifice of diſtinguiſhed beauty (unleſs with domes) in which the roof is not ſo flat as to be hidden, or nearly ſo. What eyes then muſt the French architects have had, to have loaded ſo many buildings with coverings of a height deſtructive of all beauty? Put ſuch a roof as we ſee on the parliament houſe or on the Thuilleries, upon the façade of the Louvre, and where would its beauty be?—At night to the opera, which I thought a good theatre, till they told me it was built in ſix weeks; and then it became good for nothing in my eyes, for I ſuppoſe it will be tumbling down in ſix years. Durability is one of the eſſentials of building: what pleaſure would a beautiful front of painted paſteboard give? The Alceſte of Gluck was performed; that part by Mademoiſelle St. Huberti, their firſt ſinger, an excellent actreſs. As to ſcenes, dreſſes, decorations, dancing, &c. this theatre is much ſuperior to that in the Haymarket.

The 13th. Acroſs Paris to the rue de blancs Manteaux, to Monſ. Brouſſonet, ſecretary of the Society of Agriculture; he is in Burgundy. Called on Mr. Cook from London, who is at Paris with his drill-plough, waiting for weather to ſhew its performance to the Duke of Orleans: this is a French idea, improving France by drilling. A man ſhould learn to walk before he learns to dance. There is agility in cutting capers, and it may be done with grace; but where is the neceſſity to cut them at all? There has been much rain to-day; and it is almoſt incredible to a perſon uſed to London, how dirty the ſtreets of Paris are, and how horribly inconvenient and dangerous walking is without a foot-pavement. We had a large party at dinner, with politicians among them, and ſome intereſting converſation on the preſent ſtate of France. The feeling of every body ſeems to be that the archbiſhop will not be able to do any thing towards exonerating the ſtate from the burthen of its preſent ſituation; ſome think that he has not the inclination; others that he has not the courage; others that he has not the ability. By ſome he is thought to be attentive only to his own intereſt; and by others, that the finances are too much deranged to be within the power of any ſyſtem to recover, ſhort of the ſtates-general of the kingdom; and that it is impoſſible for ſuch an aſſembly to meet without a revolution in the government enſuing. All ſeem to think that ſomething extraordinary will happen; and a bankruptcy is an idea not at all uncommon. But who is there that will have the courage to make it?

The 14th. To the Benedictine abbey of St. Germain, to ſee pillars of African marble, &c. It is the richeſt abbey in France: the abbot has 300,000 livres a year (13,125l.) I loſe my patience at ſeeing ſuch revenues thus beſtowed; conſiſtent with the ſpirit of the tenth century, but not with that of the eighteenth. What a noble farm would a fourth of this income eſtabliſh! what turnips, what cabbages, what potatoes, what clover, what ſheep, what wool!—Are not theſe things better than a fat eccleſiaſtic? If an active Engliſh farmer were mounted behind this abbot, I think he would do more good to France with half the income than half the abbots of the kingdom with the whole of theirs. Paſs the Baſtile; another pleaſant object to make agreeable emotions vibrate in a man's boſom. I ſearch for good farmers, and run my head at every turn againſt monks and ſtate priſons.—To the arſenal, to wait on Monſ.

Lavoiſier, the celebrated chemiſt, whoſe theory of the non-exiſtence of phlogiſton has made as much noiſe in the chemical world as that of Stahl, which eſtabliſhed its exiſtence. Dr. Prieſtley had given me a letter of introduction. I mentioned in the courſe of converſation his laboratory, and he appointed Tueſday. By the Boulevards, to the Place Louis XV. which is not properly a ſquare, but a very noble entrance to a great city. The façades of the two buildings erected are highly finiſhed. The union of the Place Louis XV. with the champs Eliſees, the gardens of the Thuilleries and the Seine is open, airy, elegant, and ſuperb; and is the moſt agreeable and beſt built part of Paris; here one can be clean and breathe freely. But by far the fineſt thing I have yet ſeen at Paris is the Halle aux bleds, or corn market; it is a vaſt rotunda; the roof entirely of wood, upon a new principle of carpentry, to deſcribe which would demand plates and long explanations; the gallery is one hundred and fifty yards round, conſequently the diameter is as many feet. It is as light as if ſuſpended by the fairies. In the grand area, wheat, peaſe, beans, lentils, are ſtored and ſold. In the ſurrounding diviſions, flour on wooden ſtands. You paſs by ſtair-caſes doubly winding within each other to ſpacious apartments for rye, barley, oats, &c. The whole is ſo well planned, and ſo admirably executed, that I know of no public building that exceeds it either in France or England. And if an appropriation of the parts to the conveniencies wanted, and an adaptation of every circumſtance to the end required, in union with that elegance which is conſiſtent with uſe, and that magnificence which reſults from ſtability and duration, be the criteria of public edifices, I know nothing that equals it:—it has but one fault, and that is ſituation; it ſhould have been upon the banks of the river, for the convenience of unloading barges without land carriage. In the evening, to the Comedie Italienne; the edifice fine; and the whole quarter regular and new built, a private ſpeculation of the Duke de Choiſeul, whoſe family has a box entailed for ever.—L'Aimant jaloux. Here is a young ſinger, Mademoiſelle Renard, with ſo ſweet a voice, that if ſhe ſung Italian, and had been taught in Italy, would have made a delicious performer.

To the tomb of Cardinal de Richlieu, which is a noble production of genius: by far the fineſt ſtatue I have ſeen. Nothing can be imagined more eaſy and graceful than the attitude of the cardinal, nor can nature be more expreſſive than the figure of weeping ſcience. Dine with my friend at the Palais Royal at a coffee-houſe; well dreſſed people; every thing clean, good, and well ſerved: but here, as every where elſe, you pay a good price for good things; we ought never to forget that a low price for bad things is not cheapneſs. In the evening to l'Ecole des Peres, at the Comedie Françaiſe, a crying larmoyant thing. This theatre, the principle one at Paris, is a fine building, with a magnificent portico. After the circular theatres of France, how can any one reliſh our ill-contrived oblong holes of London?

The 16th. To Monſ. Lavoiſier, by appointment. Madame Lavoiſier, a lively, ſenſible, ſcientific lady, had prepared a *dejeuné Anglois* of tea and coffee; but her converſation on Mr. Kirwan's Eſſay on Phlogiſton, which ſhe is tranſlating from the Engliſh, and on other ſubjects, which a woman of underſtanding, who works with her huſband in his laboratory, knows how to adorn, was the beſt repaſt. That apartment, the operations of which have been rendered ſo intereſting to the philoſophical world, I had the pleaſure of viewing. In the apparatus for aërial experiments, nothing makes ſo great a figure as the machine for burning inflammable and vital air, to make, or depoſit water; it is a ſplendid machine. Three veſſels are held in ſuſpenſion with indexes for marking the immediate variations of their weights; two, that are as large as half hogſheads, contain the one inflammable, the other the vital air, and a tube of

communication paſſes to the third, where the two airs unite and burn; by contrivances, too complex to deſcribe without plates, the loſs of weight of the two airs, as indicated by their reſpective balances, equal at every moment to the gain in the third veſſel from the formation or depoſition of the water, it not being yet aſcertained whether the water be actually made or depoſited. If accurate (of which I muſt confeſs I have little conception), it is a noble machine. Monſ. Lavoiſier, when the ſtructure of it was commended, ſaid *Mais oüi monſieur, & méme par un artiſte François!* with an accent of voice that admitted their general inferiority to ours. It is well known that we have a conſiderable exportation of mathematical and other curious inſtruments to every part of Europe, and to France among the reſt. Nor is this new, for the apparatus with which the French academicians meaſured a degree in the polar circle was made by Mr. George Graham *. Another engine Monſ. Lavoiſier ſhewed us was an electrical apparatus incloſed in a balloon, for trying electrical experiments in any ſort of air. His pond of quickſilver is conſiderable, containing 250lb. and his water apparatus very great, but his furnaces did not ſeem ſo well calculated for the higher degrees of heat as ſome others I have ſeen. I was glad to find this gentleman ſplendidly lodged, and with every appearance of a man of conſiderable fortune. This ever gives one pleaſure: the employments of a ſtate can never be in better hands than of men who thus apply the ſuperfluity of their wealth. From the uſe that is generally made of money, one would think it the aſſiſtance of all others of the leaſt conſequence in effecting any buſineſs truly uſeful to mankind, many of the great diſcoveries that have enlarged the horizon of ſcience having been in this reſpect the reſult of means ſeemingly inadequate to the end: the energetic exertions of ardent minds, burſting from obſcurity, and breaking the bands inflicted by poverty, perhaps by diſtreſs. To the hotel des invalids, the major of which eſtabliſhment had the goodneſs to ſhew the whole of it. In the evening to Monſ. Lomond, a very ingenious and inventive mechanic, who has made an improvement of the jenny for ſpinning cotton. Common machines are ſaid to make too hard a thread for certain fabrics, but this forms it looſe and ſpongy. In electricity he has made a remarkable diſcovery: you write two or three words on a paper; he takes it with him into a room, and turns a machine incloſed in a cylindrical caſe, at the top of which is an electrometer, a ſmall fine pith ball; a wire connects with a ſimilar cylinder and electrometer in a diſtant apartment; and his wife, by remarking the correſponding motions of the ball, writes down the words they indicate: from which it appears that he has formed an alphabet of motions. As the length of the wire makes no difference in the effect, a correſpondence might be carried on at any diſtance: within and without a beſieged town for inſtance; or for a purpoſe much more worthy, and a thouſand times more harmleſs, between two lovers prohibited or prevented from any better connection. Whatever the uſe may be, the invention is beautiful. Monſ. Lomond has many other curious machines, all the entire work of his own hands: mechanical invention ſeems to be in him a natural propenſity. In the evening to the Comedie Françaiſe. Mola did the Bourru Bienfaiſant, and it is not eaſy for acting to be carried to greater perfection.

The 17th. To Monſ. l'Abbé Meſſier, aſtronomer royal, and of the Academy of Sciences. View the exhibition, at the Louvre, of the academy's paintings. For one hiſtory piece in our exhibitions at London here are ten; abundantly more than to balance the difference between an annual and biennial exhibition. Dined to-day with a party, whoſe converſation was entirely political. Monſ. de Calonne's Requéte au Roi

* Whitehurſt's Formation of the Earth, 2d edit. p. 6.

is come over, and all the world are reading and diſputing on it. It ſeems, however, generally agreed that, without exonerating himſelf from the charge of the agiotage, he has thrown no inconſiderable load on the ſhoulders of the archbiſhop of Toulouze, the preſent premier, who will be puzzled to get rid of the attack. But both theſe miniſters were condemned on all hands in the lump; as being abſolutely unequal to the difficulties of ſo arduous a period. One opinion pervaded the whole company, that they are on the eve of ſome great revolution in the government: that every thing points to it: the confuſion in the finances great; with a deficit impoſſible to provide for without the ſtates-general of the kingdom, yet no ideas formed of what would be the conſequence of their meeting: no miniſter exiſting, or to be looked to in or out of power, with ſuch deciſive talents as to promiſe any other remedy than palliative ones: a prince on the throne, with excellent diſpoſitions, but without the reſources of a mind that could govern in ſuch a moment without miniſters: a court buried in pleaſure and diſſipation; and adding to the diſtreſs, inſtead of endeavouring to be placed in a more independent ſituation: a great ferment amongſt all ranks of men, who are eager for ſome change, without knowing what to look to, or to hope for: and a ſtrong leaven of liberty, increaſing every hour ſince the American revolution; altogether form a combination of circumſtances that promiſe ere long to ferment into motion, if ſome maſter hand, of very ſuperior talents, and inflexible courage, be not found at the helm to guide events, inſtead of being driven by them. It is very remarkable, that ſuch converſation never occurs, but a bankruptcy is a topic: the curious queſtion on which is, would a bankruptcy occaſion a civil war, and a total overthrow of the government? The anſwers that I have received to this queſtion appear to be juſt: ſuch a meaſure, conducted by a man of abilities, vigour, and firmneſs, would certainly not occaſion either one or the other. But the ſame meaſure, attempted by a man of a different character, might poſſibly do both. All agree, that the ſtates of the kingdom cannot aſſemble without more liberty being the conſequence; but I meet with ſo few men who have any juſt ideas of freedom, that I queſtion much the ſpecies of this new liberty that is to ariſe. They know not how to value the privileges of the people: as to the nobility and the clergy, if a revolution added any thing to their ſcale, I think it would do more miſchief than good *.

The 18th. To the Gobelins, which is undoubtedly the firſt manufacture of tapeſtry in the world, and ſuch an one as could be ſupported by a crowned head only. In the evening to that incomparable comedy La Metromanie, of Pyron, and well acted. The more I ſee of it, the more I like the French theatre; and have no doubt in preferring it far to our own. Writers, actors, buildings, ſcenes, decorations, muſic, dancing, take the whole in a maſs, and it is unrivalled by London. We have certainly a few brilliants of the firſt water; but to throw all in the ſcales that of England kicks the beam. I write this paſſage with a lighter heart than I ſhould do were it giving the palm to the French plough.

The 19th. To Charenton, near Paris, to ſee l'Ecole Veterinaire, and the farm of the Royal Society of Agriculture. Monſ. Chabert, the directeur-general, received us with the moſt attentive politeneſs. Monſ. Flandrein, his aſſiſtant, and ſon-in-law, I had had the pleaſure of knowing in Suffolk. They ſhewed the whole veterinary eſtabliſhment, and it does honour to the government of France. It was formed in

* In tranſcribing theſe papers for the preſs, I ſmile at ſome remarks and circumſtances which events have ſince placed in a ſingular poſition; but I alter none of theſe paſſages; they explain what were the opinions in France, before the revolution, on topics of importance; and the events which have ſince taken place render them the more intereſting. June, 1790.

1766: in 1783 a farm was annexed to it, and four other profeſſorſhips eſtabliſhed; two for rural œconomy, one for anatomy, and another for chemiſtry.—I was informed that Monſ. d'Aubenton, who is at the head of this farm with a ſalary of 6000 livres a year, reads lectures of rural œconomy, particularly on ſheep, and that a flock was for that purpoſe kept in exhibition. There is a ſpacious and convenient apartment for diſſecting horſes and other animals; a large cabinet, where the moſt intereſting parts of all domeſtic animals are preſerved in ſpirits; and alſo of ſuch parts of the bodies that mark the viſible effect of diſtempers. This is very rich. This, with a ſimilar one near Lyons, is kept up (excluſive of the addition of 1783) at the moderate expence, as appears by the writings of M. Necker, of about 60,000 livres (2600l.) Whence, as in many other inſtances, it appears that the moſt uſeful things coſt the leaſt. There are at preſent about one hundred eléves from different parts of the kingdom, as well as from every country in Europe, except England; a ſtrange exception, conſidering how groſsly ignorant our farriers are; and that the whole expence of ſupporting a young man here does not exceed forty louis a year; nor more than four years neceſſary for his complete inſtruction. As to the farm, it is under the conduct of a great naturaliſt, high in royal academies of ſcience, and whoſe name is celebrated through Europe for merit in ſuperior branches of knowledge. It would argue in me a want of judgment in human nature, to expect good practice from ſuch men. They would probably think it beneath their purſuits and ſituation in life to be good ploughmen, turnip-hoers, and ſhepherds; I ſhould therefore betray my own ignorance of life, if I were to expreſs any ſurprize at finding this farm in a ſituation that—I had rather forget than deſcribe. In the evening, to a field much more ſucceſsfully cultivated, Mademoiſelle St. Huberti, in the Penelope of Picini.

The 20th. To the Ecole Militaire, eſtabliſhed by Louis XV. for the education of one hundred and forty youths, the ſons of the nobility; ſuch eſtabliſhments are equally ridiculous and unjuſt. To educate the ſon of a man who cannot afford the education himſelf, is a groſs injuſtice, if you do not ſecure a ſituation in life anſwerable to that education. If you do not ſecure ſuch a ſituation, you deſtroy the reſult of the education, becauſe nothing but merit ought to give that ſecurity. If you educate the children of men, who are well able to give the education themſelves, you tax the people who cannot afford to educate their children, in order to eaſe thoſe who can well afford the burthen; and, in ſuch inſtitutions, this is ſure to be the caſe. At night to l'Ambigu Comique, a pretty little theatre, with plenty of rubbiſh on it. Coffee-houſe on the boulevards, muſic, noiſe, and filles without end; every thing but ſcavenger and lamps. The mud is a foot deep; and there are parts of the boulevards without ſingle light.

The 21ſt. Monſ. de Brouſſonet being returned from Burgundy, I had the pleaſure of paſſing a couple of hours at his lodgings very agreeably. He is a man of uncommon activity, and poſſeſſed of a great variety of uſeful knowledge in every branch of natural hiſtory; and he ſpeaks Engliſh perfectly well. It is very rare that a gentleman is ſeen better qualified for a poſt than Monſ. de Brouſſonet for that which he occupies, as ſecretary to a royal ſociety.

The 22d. To the bridge of Neuilé, ſaid to be the fineſt in France. It is by far the moſt beautiful one I have any where ſeen. It conſiſts of five vaſt arches; flat, from the Florentine model; and all of equal ſpan; a mode of building incomparably more elegant, and more ſtriking than our ſyſtem of different ſized arches. To the machine at Marly; which ceaſes to make the leaſt impreſſion. Madame du Barré's reſidence, Luſienne, is on the hi[illegible]

on the brow of the declivity, for commanding the proſpect, fitted up and decorated with much elegance. There is a table formed of Sevre porcelain, exquiſitely done. I forget how many thouſand louis d'ors it coſt. The French, to whom I ſpoke of Luſienne, exclaimed againſt miſtreſſes and extravagance with more violence than reaſon in my opinion. Who, in common ſenſe, would deny a king the amuſement of a miſtreſs, provided he did not make a buſineſs of his play-thing. *Mais Frederic le Grand avoit il une maitreſſe, lui faſoit-il batir de pavillons, et les meubloit-il de tables de porcelaine?* No: but he had that which was fifty times worſe: a king had better make love to a handſome woman than to one of his neighbour's provinces. The king of Pruſſia's miſtreſs coſt an hundred millions ſterling, and the lives of 500,000 men; and before the reign of that miſtreſs is over, may yet coſt as much more. The greateſt genius and talents are lighter than a feather, weighed philoſophically, if rapine, war, and conqueſt be the effects of them.

To St. Germain's, the terrace of which is very fine. Monſieur de Brouſſonet met me here, and we dined with Monſieur Breton, at the Marechal duc de Noailles, who has a good collection of curious plants. Here is the fineſt ſophora japonica I have ſeen. ——10 miles.

The 23d. To Trianon, to view the Queen's Jardin Anglois. I had a letter to Monſieur Richard, which procured admittance. It contains about one hundred acres, diſpoſed in the taſte of what we read of in books of Chineſe gardening, whence it is ſuppoſed the Engliſh ſtyle was taken. There is more of Sir William Chambers here than of Mr. Brown—more effort than nature—and more expence than taſte. It is not eaſy to conceive any thing that art can introduce in a garden that is not here; woods, rocks, lawns, lakes, rivers, iſlands, caſcades, grottos, walks, temples, and even villages. There are parts of the deſign very pretty, and well executed. The only fault is too much crouding, which has led to another, that of cutting the lawn by two many gravel walks, an error to be ſeen in almoſt every garden I have met with in France. But the glory of La Petite Trianon is the exotic trees and ſhrubs. The world has been ſucceſsfully rifled to decorate it. Here are curious and beautiful ones to pleaſe the eye of ignorance; and to exerciſe the memory of ſcience. Of the buildings, the temple of Love is truly elegant.

Again to Verſailles. In viewing the king's apartment, which he had not left a quarter of an hour, with thoſe ſlight traits of diſorder that ſhewed he lived in it, it was amuſing to ſee the blackguard figures that were walking uncontrouled about the palace, and even in his bed-chamber; men whoſe rags betrayed them to be in the laſt ſtage of poverty, and I was the only perſon that ſtared and wondered how they got thither. It is impoſſible not to like this careleſs indifference and freedom from ſuſpicion. One loves the maſter of the houſe, who would not be hurt or offended at ſeeing his apartment thus occupied, if he returned ſuddenly; for if there were danger of this, the intruſion would be prevented. This is certainly a feature of that good temper which appears to me ſo viſible every where in France. I deſired to ſee the Queen's apartments, but I could not. Is her majeſty in it? No. Why then not ſee it as well as the King's. *Ma foi, Monſ. c'eſt un autre choſe.* Ramble through the gardens, and by the grand canal, with abſolute aſtoniſhment at the exaggeration of writers and travellers. There is magnificence in the quarter of the orangerie, but no beauty any where; there are ſome ſtatues good enough to be wiſhed under cover. The extent and breadth of the canal are nothing to the eye; and it is not in ſuch good repair as a farmer's horſe-pond. The menagerie is well enough, but nothing great. Let thoſe who deſire that the buildings and eſtabliſhments of Louis XIV. ſhould continue the impreſſion

impreſſion made by the writings of Voltaire, go to the canal of Languedoc, and by no means to Verſailles. Return to Paris.——14 miles.

The 24th. With Monſieur de Brouſſonet to the king's cabinet of natural hiſtory and the botanical garden, which is in beautiful order. Its riches are well known, and the politeneſs of Monſieur Thouin, which is that of a moſt amiable diſpoſition, renders this garden the ſcene of other rational pleaſures beſides thoſe of botany. Dine at the Invalides, with Monſieur Parmentier, the celebrated author of many œconomical works, particularly on the boulangerie of France. This gentleman, to a conſiderable maſs of uſeful knowledge, adds a great deal of that fire and vivacity for which his nation has been diſtinguiſhed, but which I have not recognized ſo often as I expected.

The 25th. This great city appears to be in many reſpects the moſt ineligible and inconvenient for the reſidence of a perſon of ſmall fortune of any that I have ſeen; and by far inferior to London. The ſtreets are very narrow, and many of them crowded, nine-tenths dirty, and all without foot-pavements. Walking, which in London is ſo pleaſant and ſo clean, that ladies do it every day, is here a toil and fatigue to a man, and an impoſſibility to a well-dreſſed woman. The coaches are numerous, and what is much worſe, there is an infinity of one-horſe cabriolets, which are driven by young men of faſhion and their imitators, alike fools, with ſuch rapidity as to be real nuiſances, and render the ſtreets exceedingly dangerous, without an inceſſant caution. I ſaw a poor child run over and probably killed, and have been myſelf many times blackened with the mud of the kennels. This beggarly practice of driving a one-horſe booby hutch about the ſtreets of a great capital, flows either from poverty, or a wretched and deſpicable œconomy; nor is it poſſible to ſpeak of it with too much ſeverity. If young noblemen at London were to drive their chaiſes in ſtreets without foot-ways, as their brethren do at Paris, they would ſpeedily and juſtly get very well threſhed, or rolled in the kennel. This circumſtance renders Paris an ineligible reſidence for perſons, particularly families that cannot afford to keep a coach; a convenience which is as dear as at London. The fiacres, hackney-coaches, are much worſe than at that city; and chairs there are none, for they would be driven down in the ſtreets. To this circumſtance alſo it muſt be aſcribed, that all perſons of ſmall or moderate fortune, are forced to dreſs in black, with black ſtockings; the duſky hue of this in company is not ſo diſagreeable a circumſtance as being too great a diſtinction; too clear a line drawn in company between a man that has a good fortune, and another that has not. With the pride, arrogance, and ill-temper of Engliſh wealth this could not be borne; but the prevailing good humour of the French eaſes all ſuch untoward circumſtances. Lodgings are not half ſo good as at London, yet conſiderably dearer. If you do not hire a whole ſuit of rooms at an hotel, you muſt probably mount three, four, or five pair of ſtairs, and in general have nothing but a bed-chamber. After the horrid fatigue of the ſtreets, ſuch an elevation is a delectable circumſtance. You muſt ſearch with trouble before you will be lodged in a private family, as gentlemen uſually are at London, and pay a higher price. Servants' wages are about the ſame as at that city. It is to be regretted that Paris ſhould have theſe diſadvantages, for in other reſpects I take it to be a moſt eligible reſidence for ſuch as prefer a great city. The ſociety for a man of letters, or who has any ſcientific purſuit, cannot be exceeded. The intercourſe between ſuch men and the great, which, if it be not upon an equal footing, ought never to exiſt at all, is reſpectable. Perſons of the higheſt rank pay an attention to ſcience and literature, and emulate the character they confer. I ſhould pity the man who expected, without other advantages of a very different nature, to be well received in

in a brilliant circle at London, becauſe he was a fellow of the Royal Society. But this would not be the caſe with a member of the Academy of Sciences at Paris; he is ſure of a good reception every where. Perhaps this contraſt depends in a great meaſure on the difference of the governments of the two countries. Politics are too much attended to in England, to allow a due reſpect to be paid to any thing elſe; and ſhould the French eſtabliſh a freer government, academicians will not be held in ſuch eſtimation, when rivalled in the public eſteem by the orators who hold forth liberty and property in a free parliament.

The 28th. Quit Paris, and take the road to Flanders. Monſieur de Brouſſonet was ſo obliging as to accompany me to Dugny, to view the farm of Monſieur Cretté de Palluel, a very intelligent cultivator. Take the road to Senlis: at Dammertin, I met by accident a French gentleman, a Monſieur du Pré du St. Cotin. Hearing me converſing with a farmer on agriculture, he introduced himſelf as an amateur, gave me an account of ſeveral experiments he had made on his eſtate in Champagne, and promiſed a more particular detail; in which he was as good as his word.——22 miles.

The 29th. Paſs Nanteul, where the Prince of Condé has a chateau, to Villes-Coterets, in the midſt of immenſe foreſts belonging to the Duke of Orleans. The crop of this country, therefore, is princes of the blood; that is to ſay, hares, pheaſants, deer, boars!——26 miles.

The 30th. Soiſſons ſeems a poor town, without manufactures, and chiefly ſupported by a corn trade, which goes hence by water to Paris and Rouen.——25 miles.

The 31ſt. Coucy is beautifully ſituated on a hill, with a fine vale winding beſide it. At St. Gobin, which is in the midſt of great woods, I viewed the fabric of plate glaſs, the greateſt in the world. I was in high luck, arriving about half an hour before they began to run glaſſes for the day. Paſs La Fere. Reach St. Quintin, where are conſiderable manufactures that employed me all the afternoon. From St. Gobin are the moſt beautiful ſlate roofs I have any where ſeen.——30 miles.

November 1. Near Belle Angloiſe I turned aſide half a league to view the canal of Picardy, of which I had heard much. In paſſing from St. Quintin to Cambray the country riſes, ſo that it was neceſſary to carry it in a tunnel under ground for a conſiderable depth, even under many vales as well as hills. In one of theſe vallies there is an opening for viſiting it by an arched ſtair-caſe, on which I deſcended one hundred and thirty-four ſteps to the canal; and as this valley is much below the adjacent and other hills, the great depth at which it is digged may be conceived. Over the door of the deſcent, is the following inſcription:—"L'Ann. 1781.——Monſ. le Comte d'Agay étant intendant de cette province, Monſ. Laurent de Lionni étant directeur de l'ancien & nouveau canal de Picardie, & Monſ. le Champroſé inſpecteur, Joſeph II. Empereur Roi des Romaines, a parcouru en batteau le canal ſous terrain depuis cet endroit juſques au puit, No. 20, le 28, & a temoigné ſa ſatisfaction d'avoir vu cet ouvrage en ces termes: 'Je ſuis fier d'être homme, quand je vois qu'un de mes ſemblables a oſé imaginer & executer un ouvrages auſſi vaſte et auſſi hardie. Cette idea me leve l'ame.'" —Theſe three Meſſieurs lead the dance here in a very French ſtyle. The great Joſeph follows humbly in their train; and as to poor Louis XVI. at whoſe expence the whole was done, theſe gentlemen certainly thought that no name leſs than that of an emperor ought to be annexed to theirs. When inſcriptions are fixed to public works, no names ought to be permitted but thoſe of the king, whoſe merit patronizes, and of the engineer or artiſt whoſe genius executes the work. As to a mob of intendants, directors, and inſpectors, let them be forgotten. The canal at this place is ten French feet wide

wide and twelve high, hewn entirely out of the chalk rock, imbedded, in which are many ſtints—no maſonry. There is only a ſmall part finiſhed of ten toiſes long for a pattern, twenty feet broad, and twenty high. Five thouſand toiſes are already done in the manner of that part which I viewed; and the whole diſtance under ground, when the tunnel will be complete, is ſeven thouſand and twenty toiſes (each ſix feet) or about nine miles. It has already coſt 1,200,000 livres (52,500l.) and there want 2,500,000 livres (109,375l.) to complete it; ſo that the total eſtimate is near four millions. It is executed by ſhafts. At preſent there are not above five or ſix inches of water in it. This great work has ſtood ſtill entirely ſince the adminiſtration of the Archbiſhop of Toulouze. When we ſee ſuch works ſtand ſtill for want of money, we ſhall reaſonably be inclined to aſk, what are the ſervices that continue ſupplied? and to conclude, that amongſt kings, and miniſters, and nations, œconomy is the firſt virtue:—without it, genius is a meteor; victory a ſound; and all courtly ſplendour a public robbery.

At Cambray, view the manufacture. Theſe frontier towns of Flanders are built in the old ſtyle, but the ſtreets broad, handſome, well paved, and lighted. I need not obſerve, that all are fortified, and that every ſtep in this country has been rendered famous or infamous according to the feelings of the ſpectator, by many of the bloodieſt wars that have diſgraced and exhauſted chriſtendom. At the hotel de Bourbon I was well lodged, fed, and attended: an excellent inn.——22 miles.

The 2d. Paſs Bouchaine to Valenciennes, another old town, which, like the reſt of the Flemiſh ones, manifeſts more the wealth of former than of preſent times.—— 8 miles.

The 3d, to Orchees; and the 4th to Liſle, which is ſurrounded by more windmills for ſqueezing out the oil of coleſeed, than are probably to be ſeen any where elſe in the world. Paſs fewer drawbridges and works of fortification here than at Calais; the great ſtrength of this place is in its mines and other ſouteraines. In the evening to the play.

The cry here for a war with England amazed me. Every one I talked with ſaid, it was beyond a doubt the Engliſh had called the Pruſſian army into Holland; and that the motives in France for a war were numerous and manifeſt. It is eaſy enough to diſcover, that the origin of all this violence is the commercial treaty, which is execrated here, as the moſt fatal ſtroke to their manufactures they ever experienced. Theſe people have the true monopolizing ideas; they would involve four-and-twenty millions of people in the certain miſeries of a war, rather than ſee the intereſt of thoſe who conſume fabrics, preferred to the intereſt of thoſe who make them. The advantages reaped by four-and-twenty millions of conſumers are ſuppoſed to be lighter than a feather, compared with the inconveniences ſuſtained by half a million of manufacturers. Meet many ſmall carts in the town, drawn each by a dog: I was told by the owner of one, what appears to me incredible, that his dog would draw 700lb. half a league. The wheels of theſe carts are very high, relative to the height of the dog, ſo that his cheſt is a good deal below the axle.

The 6th. In leaving Liſle, the reparation of a bridge made me take a road on the banks of the canal, cloſe under the works of the citadel. They appear to be very numerous, and the ſituation exceedingly advantageous, on a gently riſing ground, ſurrounded by low watery meadows, which may with eaſe be drowned. Paſs Darmentiers, a large paved town. Sleep at Mont Caſſel.——30 miles.

The 7th. Caſſel is on the ſummit of the only hill in Flanders. They are now repairing the baſon at Dunkirk, ſo famous in hiſtory for an imperiouſneſs in England,

which ſhe muſt have paid dearly for. Dunkirk, Gibraltar, and the ſtatue of Louis XIV. in the Place de Victoire, I place in the ſame political claſs of national arrogance. Many men are now at work on this baſon, and, when finiſhed, it will not contain more than twenty or twenty-five frigates; and appears, to an unlearned eye, a ridiculous object for the jealouſy of a great nation, unleſs it profeſſed to be jealous of privateers.—I made enquiries concerning the import of wool from England, and was aſſured that it was a very trifling object. I may here obſerve, that when I left the town, my little cloak-bag was examined as ſcrupulouſly as if I had juſt left England with a cargo of prohibited goods, and again at a fort two miles off. Dunkirk being a free port, the cuſtom-houſe is at the gates. What are we to think of our woollen manufacturers in England, when ſuing for their wool-bill, of infamous memory, they brought one Thomas Wilkinſon from Dunkirk quay, to the bar of the Engliſh Houſe of Lords to ſwear, that wool paſſes from Dunkirk without entry, duty, or any thing being required, at double cuſtom-houſes, for a check on each other, where they examine even a cloak-bag? On ſuch evidence, did our legiſlature, in the true ſhop-keeping ſpirit, paſs an act of fines, pains, and penalties againſt all the wool-growers of England. Walk to Roſſendal near the town, where Monſ. le Brun has an improvement on the Dunes, which he very obligingly ſhewed me. Between the town and that place is a great number of neat little houſes, built each with its garden, and one or two fields encloſed of moſt wretched blowing Dune ſand, naturally as white as ſnow, but improved by induſtry. The magic of property turns ſand to gold.——18 miles.

The 8th. Leave Dunkirk, where the Concierge a good inn, as indeed I have found all in Flanders. Paſs Gravelline, which, to my unlearned eyes, ſeems the ſtrongeſt place I have yet ſeen, at leaſt the works above ground are more numerous than at any other. Ditches, ramparts, and drawbridges without end. This is a part of the art military I like: it implies defence. If Gengiſchan or Tamerlane had met with ſuch places as Gravelline or Liſle in their way, where would their conqueſts and extirpations of the human race have been?——Reach Calais. And here ends a journey which has given me a great deal of pleaſure, and more information than I ſhould have expected in a kingdom not ſo well cultivated as our own. It has been the firſt of my foreign travels; and has with me confirmed the idea, that to know our own country well, we muſt ſee ſomething of others. Nations figure by compariſon; and thoſe ought to be eſteemed the benefactors of the human race, who have moſt eſtabliſhed public proſperity on the baſis of private happineſs. To aſcertain how far this has been the caſe with the French, has been one material object of my tour. It is an enquiry of great and complex range; but a ſingle excurſion is too little to truſt to. I muſt come again and again before I venture concluſions.——25 miles.

Wait at Deſſeins three days for a wind (the Duke and Ducheſs of Glouceſter are in the ſame inn and ſituation) and for a pacquet. A captain behaved ſhabbily: deceived me, and was hired by a family that would admit nobody but themſelves: —I did not aſk what nation this family was of.—Dover—London—Bradfield;—and have more pleaſure in giving my little girl a French doll, than in viewing Verſailles.

1788.

THE long journey I had laſt year taken in France ſuggeſted a variety of reflections on the agriculture, and on the ſources and progreſs of national proſperity in that kingdom;

dom; in ſpite of myſelf, theſe ideas fermented in my mind; and while I was drawing concluſions relative to the political ſtate of that great country, in every circumſtance connected with its huſbandry, I found, at each moment of my reflection, the importance of making as regular a ſurvey of the whole as was poſſible for a traveller to effect. Thus inſtigated, I determined to attempt finiſhing what I had fortunately enough begun.

July 30. Left Bradfield; and arived at Calais.——161 miles.

Auguſt 5. The next day I took the road to St. Omers. Paſs the bridge Sans Pareil, which ſerves a double purpoſe, paſſing two ſtreams at once; but it has been praiſed beyond its merit, and coſt more than it was worth. St. Omers contains little deſerving notice; and, if I could direct the legiſlatures of England and Ireland, ſhould contain ſtill leſs:—why are catholics to emigrate in order to be ill educated abroad, inſtead of being allowed inſtitutions that would educate them well at home? The country is ſeen to advantage from St. Bertin's ſteeple.——25 miles.

The 7th. The canal of St. Omers is carried up a hill by a ſeries of ſluices. To Aire, and Lilliers, and Bethune, towns well known in military ſtory.——25 miles.

The 8th. The country changes, now a champaign; from Bethune to Arras an admirable gravel road. At the laſt town there is nothing but the great and rich abbey of Var, and this they would not ſhew me—it was not the right day—or ſome frivolous excuſe. The cathedral is nothing.——17½ miles.

The 9th. Market-day; coming out of the town I met at leaſt an hundred aſſes, ſome loaded with a bag, others a ſack, but all apparently with a trifling burthen, and warms of men and women. This is called a market, being plentifully ſupplied; but a great proportion of all the labour of a country is idle in the midſt of harveſt, to ſupply a town which in England would be fed by $\frac{1}{20}$ of the people: whenever this warm of triflers buz in a market, I take a minute and vicious diviſion of the ſoil for granted. Here my only companion *de voyage*, the Engliſh mare that carries me, diſcloſes by her eye a ſecret not the moſt agreeable, that ſhe is going rapidly blind. She is moon-eyed; but our fool of a Bury farrier aſſured me I was ſafe for above a twelvemonth. It muſt be confeſſed this is one of thoſe agreeable ſituations which not many will believe a man would put himſelf into. *Ma foy!* this is a piece of my good luck;—the journey at beſt is but a drudgery, that others are paid for performing on a good horſe, and I myſelf pay for doing it on a blind one;—I ſhall feel this inconvenience perhaps at the expence of my neck.——20 miles.

The 10th. To Amiens. Mr. Fox ſlept here laſt night, and it was amuſing to hear the converſation at the table d'hôte; they wondered that ſo great a man ſhould not travel in a greater ſtile:—I aſked what was his ſtile? Monſieur and Madame were in an Engliſh poſt-chaiſe, and the fille and valet de chamber in a cabriolet, with a French courier to have horſes ready. What would they have? but a ſtile both of comfort and amuſement? A plague on a blind mare!—But I have worked through life; and he talks.

The 11th. By Poix to Aumale; enter Normandy.——25 miles.

The 12th. Thence to Newchatel, by far the fineſt country ſince Calais. Paſs many villas of Rouen merchants.——40 miles.

The 13th. They are right to have country villas—to get out of this great ugly, ſtinking, cloſe, and ill built town, which is full of nothing but dirt and induſtry. What a picture of new buildings does a flouriſhing and manufacturing town in England exhibit! The choir of the cathedral is ſurrounded by a moſt magnificent railing of ſolid braſs. They ſhew the monument of Rollo, the firſt Duke of Normandy, and

of his ſon; of William Longſword; alſo thoſe of Richard Cœur de Lion; his brother Henry; the Duke of Bedford, regent of France; of their own King Henry V.; of the Cardinal d'Amboiſe, miniſter of Louis XII. The altar-piece is an adoration of the ſhepherds, by Philip of Champagne. Rouen is dearer than Paris, and therefore it is neceſſary for the pockets of the people that their bellies ſhould be wholeſomely pinched. At the table d'hôte, at the hotel *pomme du pin* we ſat down, ſixteen, to the following dinner: a ſoup, about 3lb. of bouilli, one fowl, one duck, a ſmall fricaſſee of chicken, a *roté* of veal, of about 2lb. and two other ſmall plates with ſallad: the price 45*ſ.* and 20*ſ.* more for a pint of wine; at an ordinary of 20d. a head in England there would be a piece of meat which would, literally ſpeaking, outweigh this whole dinner! The ducks were ſwept clean ſo quickly, that I moved from table without half a dinner. Such tables d'hôtes are among the cheap things of France! Of all *ſombres* and *triſtes* meetings a French table d'hôte is foremoſt; for eight minutes a dead ſilence, and as to the politeneſs of addreſſing a converſation to a foreigner, he will look for it in vain. Not a ſingle word has any where been ſaid to me unleſs to anſwer ſome queſtion: Rouen not ſingular in this. The parliament-houſe here is ſhut up, and its members exiled a month paſt to their country ſeats, becauſe they would not regiſter the edict for a new land-tax. I enquired much into the common ſentiments of the people, and found that the King perſonally from having been here, is more popular than the Parliament, to whom they attribute the general dearneſs of every thing. Called on Monſ. d'Ambournay, the author of a treatiſe on uſing madder green inſtead of dried, and had the pleaſure of a long converſation with him on various farming topics, intereſting to my enquiries.

The 14th. To Barentin, through abundance of apple and pear-trees, and a country better than the huſbandry; to Yvecout richer, but miſerable management.—21 miles.

The 15th. Country the ſame to Bolbeck; their incloſures remind me of Ireland, the fence is a high broad parapet bank, very well planted with hedges and oak and beech trees. All the way from Rouen there is a ſcattering of country ſeats, which I am glad to ſee; farm-houſes and cottages every where, and the cotton manufacture in all. Continues the ſame to Harfleur. To Havre de Grace, the approach ſtrongly marks a very flouriſhing place: the hills are almoſt covered with little new built villas, and many more are building; ſome are ſo cloſe as to form almoſt ſtreets, and conſiderable additions are alſo making to the town.—30 miles.

The 16th. Enquiries are not neceſſary to find out the proſperity of this town; it is nothing equivocal: fuller of motion, life, and activity, than any place I have been at in France. A houſe here, which in 1779 let without any fine on a leaſe of ſix years for 240 livres per annum, was lately let for three years at 600 livres, which twelve years paſt was to be had at 24 livres. The harbour's mouth is narrow and formed by a mole, but it enlarges into two oblong baſons of greater breadth, both are full of ſhips, to the number of ſome hundreds, and the quays around are thronged with buſineſs, all hurry, buſtle, and animation. They ſay a fifty gun ſhip can enter, but I ſuppoſe without her guns. What is better, they have merchant-men of five and ſix hundred tons; the ſtate of the harbour has however given them much alarm and perplexity; if nothing had been done to improve it, the mouth would have been filled up with ſand, an increaſing evil; to remedy which, many engineers have been conſulted. The want of a back water to waſh it out is ſo great, that they are now, at the King's expence, forming a moſt noble and magnificent work, a vaſt baſon, walled off from the ocean, or rather an incloſure of it by ſolid maſonry, ſeven hundred yards long, five yards broad, and ten or twelve feet above the ſurface of the ſea at high water; and for four hundred

yards

yards more it conſiſts of two exterior walls, each three yards broad, and filled up ſeven yards wide between them with earth; by means of this new and enormous baſon, they will have an artificial back-water, capable, they calculate, of ſweeping out the harbour's mouth clean from all obſtructions. It is a work that does honour to the kingdom. The view of the Seine from this mole is ſtriking; it is five miles broad, with high lands for its oppoſite ſhore; and the chalk cliffs and promontories, that recede to make way for rolling its vaſt tribute to the ocean, bold and noble.

Wait on Monſ. l'Abbé Dicquemarre, the celebrated naturaliſt, where I had alſo the pleaſure of meeting Mademoiſelle le Maſſon le Gloft, author of ſome agreeable performances; among others, *Entretien ſur le Havre*, 1781, when the number of ſouls was eſtimated at 25,000. The next day Monſ. le Reiſeicourt, captain of the *corps royale du Genie*, to whom alſo I had letters, introduced me to Meſſrs. Hombergs, who are ranked among the moſt conſiderable merchants of France. I dined with them at one of their country-houſes, meeting a numerous company and ſplendid entertainment. Theſe gentlemen have wives and daughters, couſins and friends, cheerful, pleaſing, and well informed. I did not like the idea of quitting them ſo ſoon, for they ſeemed to have a ſociety that would have made a longer reſidence agreeable enough. It is no bad prejudice ſurely to like people that like England; moſt of them have been there.—*Nous avons aſſurément en France de belles, d'agreeables et de bonnes choſes, mais on trouve une telle enérgie dans votre nation.*——

The 18th. By the paſſage-packet, a decked veſſel, to Honfleur, ſeven and a half miles, which we made with a ſtrong north wind in an hour, the river being rougher than I thought a river could be. Honfleur is a ſmall town, full of induſtry, and a baſon full of ſhips, with ſome Guinea-men as large as at Havre. At Pont au de Mer, wait on Monſ. Martin, director of the *manufacture royale* of leather. I ſaw eight or ten Engliſhmen that are employed here (there are forty in all), and converſed with one from Yorkſhire, who told me he had been deceived in coming; for though they are well paid, yet they find things very dear, inſtead of very cheap, as they had been given to underſtand.—20 miles.

The 19th. To Pont l'Eveque, towards which town the country is richer, that is, has more paſturage; the whole has ſingular features, compoſed of orchard incloſures, with hedges ſo thick and excellent, though compoſed of willow, with but a ſprinkling of thorns, that one can ſcarcely ſee through them: chateaus are ſcattered, and ſome good, yet the road is villainous. Pont l'Eveque is ſituated in the Pays d'Auge, celebrated for the great fertility of its paſtures. To Liſieux, through the ſame rich diſtrict, fences admirably planted, and the country thick incloſed and wooded.—At the hotel d'Angleterre, an excellent inn, new, clean, and well furniſhed; and I was well ſerved and well fed.—26 miles.

The 20th. To Caen; the road paſſes on the brow of a hill, that commands the rich valley of Corbon, full in the Pays d'Auge, the moſt fertile of the whole, all is under fine Poictu bullocks, which would figure in the counties of Leiceſter or Northampton. —28 miles.

The 21ſt. The Marquis de Guerchy, whom I had had the pleaſure of ſeeing in Suffolk, being colonel of the regiment of Artois, quartered here, I waited on him; he introduced me to his lady, and remarked, that as it was the fair of Guibray, and himſelf going thither, I could not do better than accompany him, ſince it was the ſecond fair in France. I readily agreed; in our way, we called at Bon, and dined with the Marquis of Turgot, elder brother of the juſtly celebrated Comptroller general: this gentleman is author of ſome memoirs on planting, publiſhed in the Trimeſtres of the Royal

Society of Paris; he ſhewed and explained to us all his plantations, but chiefly prides himſelf on the exotics; and I was ſorry to find in proportion not to their promiſed utility, but merely to their rarity, I have not found this uncommon in France; and it is far from being ſo in England. I wiſhed every moment for a long walk to change the converſation from trees to husbandry, and made many efforts, but all in vain. In the evening to the fair play-houſe—*Richard Cœur de Lion;* and I could not but remark an uncommon number of pretty women. Is there no antiquarian that deduces Engliſh beauty from the mixture of Norman blood? or who thinks with Major Jardine, that nothing improves ſo much as croſſing? to read his agreeable book of travels, one would think none wanted, and yet to look at his daughters, and hear their muſic, it would be impoſſible to doubt his ſyſtem. Supped at the Marquis d'Ecougal's, at his chateau *a la Frenaye.* If theſe French Marquiſſes cannot ſhew me good crops of corn and turnips, here is a noble one of ſomething elſe—of beautiful and elegant daughters, the charming copies of an agreeable mother: the whole family I pronounced at the firſt ſight amiable: they are chearful, pleaſing, intereſting: I want to know them better, but it is the fate of a traveller to meet opportunities of pleaſure, and merely ſee to quit them. After ſupper, while the company were at cards, the Marquis converſed on topics intereſting to my enquiries.—22½ miles.

The 22d. At this fair of Guibray, merchandize is ſold, they ſay, to the amount of ſix millions (262,500l.) but at that of Beaucaire to ten: I found the quantity of Engliſh goods conſiderable, hard and queen's ware; cloths and cottons. A dozen of common plain plates, 3 livres, and 4 livres for a French imitation, but much worſe; I aſked the man (a Frenchman) if the treaty of commerce would not be very injurious with ſuch a difference—*C'eſt préciſément le contraire Monſ.—quelque mauvaiſe que ſoit cette imitation, on n'a encore rien fait d'auſſi bien en France: l'année prochaine on fera mieux—nous perfectionnerons——et en fin nous l'emporterons ſur vous*—I believe he is a very good politician, and that, without competition, it is not poſſible to perfect any fabric. A dozen with blue or green edges, Engliſh, 5 livres 5*ſ.* Return to Caen; dine with the Marquis of Guerchy, Lieutenant-colonel, Major, &c. of the regiment, and their wives preſent, a large and agreeable company. View the Abbey of Benedictines, founded by William the Conqueror. It is a ſplendid building, ſubſtantial, maſſy, and magnificent, with very large apartments, and ſtone ſtair-caſes worthy of a palace. Sup with Monſ. du Meſni, captain of the *corps de Genie*, to whom I had letters; he had introduced me to the Engineer employed on the new port, which will bring ſhips of three or four hundred tons to Caen, a noble work, and among thoſe which do honour to France.

The 23d. Monſ. de Guerchy and the Abbée de ——, accompanied me to view Harcourt, the ſeat of the Duke d'Harcourt, governor of Normandy, and of the Dauphin; I had heard it called the fineſt Engliſh garden in France but Ermenonville will not allow that claim, though not near its equal as a reſidence. Found at laſt a horſe to try in order to proſecute my journey a little less like Don Quixotte, but it would by no means do; an uneaſy ſtumbling beaſt, at a price that would have bought a good one; ſo my blind friend and I muſt jog on ſtill further.—30 miles.

The 24th. To Bayeux; the cathedral has three towers, one of which is very light, elegant, and highly ornamented.

The 25th. In the road to Carentan, paſs an arm of the ſea at Iſſigny, which is fordable. At Carentan I found myſelf ſo ill, from accumulated colds I ſuppoſe, that I was ſeriouſly afraid of being laid up—not a bone without its aches; and a horrid dead leaden weight all over me. I went early to bed, waſhed down a doſe of antimonial

powders, which proved ſudorific enough to let me proſecute my journey.——23 miles.

The 26. To Vologues; thence to Cherbourg, a thick woodland, much like Suſſex. The Marquis de Guerchy had deſired me to call on Monſ. Doumerc, a great improver at Pierbutté near Cherbourg, which I did; but he was then at Paris: however his bailiff, Monſ. Baillio, with great civility ſhewed me the lands, and explained every thing —— 30 miles.

The 27th. Cherbourg. I had letters to the Duke de Beuvron, who commands here; to the Count de Chavagnac, and M. de Meuſnier, of the Academy of Sciences, and tranſlator of Cook's Voyages; the Count is in the country. So much had I heard of the famous works erecting to form a harbour here, that I was eager to view them without the loſs of a moment: the Duke favoured me with an order for that purpoſe; I therefore took a boat, and rowed acroſs the artificial harbour formed by the celebrated cones. As it is poſſible that this itinerary may be read by perſons that have not either time or inclination to ſeek other books for an account of theſe works, I will in a few words ſketch the intention and execution. The French poſſeſs no port for ſhips of war from Dunkirk to Breſt, and the former is capable of receiving frigates only. This deficiency has been fatal to them more than once in their wars with England, whoſe more favourable coaſt affords not only the Thames, but the noble harbour of Portſmouth. To remedy the want, they planned a mole acroſs the open bay of Cherbourg; but to incloſe a ſpace ſufficient to protect a fleet of the line, would demand ſo extended a wall, and ſo expoſed to heavy ſeas, that the expence would be far too great to be thought of; and at the ſame time the ſucceſs too dubious to be ventured. The idea of a regular mole was therefore given up, and a partial one on a new plan adopted; this was to erect in the ſea, in a line where a mole is wanted, inſulated columns of timber and maſonry, of ſo vaſt a ſize, as to reſiſt the violence of the ocean, and to break its waves ſufficiently to permit a bank being formed between column and column. Theſe have been called cones from their form. They are 140 feet diameter at the baſe; 60 diameter at the top, and 60 feet vertical height, being, when ſunk in the ſea, 30 to 34 feet, immerſed at the low water of high tides. Theſe enormous broad bottomed tubs being conſtructed of oak, with every attention to ſtrength and ſolidity, when finiſhed for launching, were loaded with ſtone juſt ſufficient for ſinking, and in that ſtate each cone weighed 1000 tons (of 2000lb.) To float them, ſixty empty caſks, each of ten pipes, were attached around by cords, and in this ſtate of buoyancy the enormous machine was floated to its deſtined ſpot, towed by numberleſs veſſels, and before innumerable ſpectators. At a ſignal, the cords are cut in a moment, and the pile ſinks: it is then filled inſtantly with ſtone from veſſels ready attending, and capped with maſonry. The contents of each filled to within four feet of the ſurface only, 2500 cubical toiſes of ſtone *. A vaſt number of veſſels are then employed to form a bank of ſtone from cone to cone, viſible at low water in neap tides. Eighteen cones, by one account, but thirty-three by another, would complete the work, leaving only two entrances, commanded by two very fine new-built forts, *Royale* and *d'Artois*, thoroughly well provided, it is ſaid, (for they do not ſhew them,) with an apparatus for heating canon balls. The number of cones will depend on the diſtances at which they are placed. I found eight finiſhed, and the ſkeleton frames of two more in the dock yard; but all is ſtopped by the Archbiſhop of Toulouze, in favour of the œconomical plans at preſent in ſpeculation. Four of them, the laſt ſunk, being moſt expoſed, are now repairing,

* The toiſe ſix feet.

having

having been found too weak to reſiſt the fury of the ſtorms, and the heavy weſterly ſeas. The laſt cone is much the moſt damaged, and, in proportion as they advance, they will be ſtill more and more expoſed, which gives riſe to the opinion of many ſkilful engineers, that the whole ſcheme will prove fruitleſs, unleſs ſuch an expence is beſtowed on the remaining cones as would be ſufficient to exhauſt the revenues of a kingdom. The eight already erected have for ſome years given a new appearance to Cherbourg; new houſes, and even ſtreets, and ſuch a face of activity and animation, that the ſtop to the works was received with blank countenances. They ſay, that, quarry-men included, three thouſand were employed. The effect of the eight cones already erected, and the bank of ſtone formed between them, has been to give perfect ſecurity to a conſiderable portion of the intended harbour. Two forty gun ſhips have lain at anchor within them theſe eighteen months paſt, by way of experiment, and though ſuch ſtorms have happened in that time as have put all to ſevere trials, and, as I mentioned before, conſiderably damaged three of the cones, yet theſe ſhips have not received the ſmalleſt agitation; hence it is a harbour for a ſmall fleet without doing more. Should they ever proceed with the reſt of the cones, they muſt be built much ſtronger, perhaps larger, and far greater precautions taken in giving them firmneſs and ſolidity: it is alſo a queſtion, whether they muſt not be ſunk much nearer to each other; at all events, the proportionable expence will be nearly doubled; but for wars with England, the importance of having a ſecure harbour, ſo critically ſituated, they conſider as equal almoſt to any expence; at leaſt this importance has its full weight in the eyes of the people of Cherbourg. I remarked, in rowing acroſs the harbour, that while the ſea without the artificial bar was ſo rough, that it would have been unpleaſant for a boat, within it was quite ſmooth. I mounted two of the cones, one of which has this inſcription:—*Louis* XVI.—*Sur ce premiere cône èchoué le* 6 *Juin* 1784, *a vu l'immerſion de celui de l'eſt, le* 23 *Juin* 1786.—On the whole, the undertaking is a prodigious one, and does no trifling credit to the ſpirit of enterprize of the preſent age in France. The ſervice of the marine is a favourite; whether juſtly or not, is another queſtion; and this harbour ſhews, that when this great people undertake any capital works, that are really favourites, they find inventive genius to plan, and engineers of capital talents to execute whatever is deviſed, in a manner that does honour to their kingdom. The Duke de Beuvron had aſked me to dinner, but I found that if I accepted his invitation, it would then take me the next day to view the glaſs manufacture; I preferred therefore buſineſs to pleaſure, and taking with me a letter from that nobleman to ſecure a ſight of it, I rode thither in the afternoon; it is about three miles from Cherbourg. Monſ. de Puye, the director, explained every thing to me in the moſt obliging manner. Cherbourg is not a place for a reſidence longer than neceſſary; I was here fleeced more infamouſly than at any other town in France; the two beſt inns were full; I was obliged to go to the *barque*, a vile hole, little better than a hog-ſty; where, for a miſerable dirty wretched chamber, two ſuppers compoſed chiefly of a plate of apples and ſome butter and cheeſe, with ſome trifle beſides too bad to eat, and one miſerable dinner, they brought me in a bill of 31 livres, (1l. 7s. 1d.); they not only charged the room 3 livres a night, but even the very ſtable for my horſe, after enormous items for oats, hay, and ſtraw. This is a ſpecies of profligacy which debaſes the national character. Calling, as I returned, on Monſ. Baillo, I ſhewed him the bill, at which he exclaimed for impoſition, and ſaid the man and woman were going to leave off their trade; and no wonder, if they had made a practice of fleecing others in that manner. Let no one go to Cherbourg without making a bargain for every thing he has, even to the ſtraw and ſtable; pepper, ſalt, and table-cloth.——10 miles.

The

The 28th, return to Carentan; and the 29th, pafs through a rich and thickly inclofed country to Coutances, capital of the diftrict called the Cotentin. They build in this country the beft mud houfes and barns I ever faw, excellent habitations, even of three ftories, and all of mud, with confiderable barns and other offices. The earth (the beft for the purpofe is a rich brown loam) is well kneaded with ftraw; and being fpread about four inches thick on the ground, is cut in fquares of nine inches, and thefe are taken with a fhovel, and toffed to the man on the wall who builds it; and the wall built, as in Ireland, in layers, each three feet high, that it may dry before they advance. The thickneis about two feet. They make them project about an inch, which they cut off layer by layer perfectly fmooth. If they had the Engliih way of white-wafhing, they would look as well as our lath and plaifter, and are much more durable. In good houfes the doors and windows are in ftone work. ——20 miles.

The 30th. A fine fea view of the Ifles of Chauf'ée, at five leagues diftant; and afterwards Jerfey, clear at about forty miles, with that of the town of Grandval on a high peninfula: entering the town, every idea of beauty is loft; a clofe, nafty, ugly, ill-built hole; market day, and myriads of triflers, common at a French market. The bay of Cancalle, all along to the right, and St. Michael's rock rifing out of the fea, conically, with a caftle on the top, a moft fingular and picturefque object.——30 miles.

The 31ft. At Pont Orfin, enter Bretagne; there feems here a more minute diviiion of farms than before. There is a long ftreet in the epifcopal town of Doll, without a glafs window; a horrid appearance. My entry into Bretagne gives me an idea of its being a miferable province.——22 miles.

September 1ft. To Combourg, the country has a favage-afpect; huibandry not much further advanced, at leaft in fkill, than among the Hurons, which appears incredible amidft inclofures; the people almoft as wild as their country, and their town of Combourg one of the moft brutal filthy places that can be feen; mud houfes, no windows, and a pavement fo broken, as to impede all paffengers, but cafe none—yet here is a chateau, and inhabited; who is this Monfieur de Chateaubriant, the owner, that has nerves ftrung for a refidence amidft fuch filth and poverty? Below this hideous heap of wretchednefs is a fine lake, furrounded by well wooded inclofures. Coming out of Hedé there is a beautiful lake, belonging to Monfieur de Blaffac, intendant of Poictiers, with a fine accompaniment of wood. A very little cleaning would make here a delicious fcenery. There is a chateau, with four rows of trees, and nothing elfe to be feen from the windows in the true French ftyle. Forbid it, tafte, that this fhould be the houfe of the owner of that beautiful water; and yet this Monfieur de Blaffac has made at Poictiers the fineft promenade in France! But that tafte which draws a ftrait line, and that which traces a waving one, are founded on feelings and ideas as feparate and diftinct as painting and mufic—as poetry or fculpture. The lake abounds with fifh, pike to 36lb. carp to 24lb. perch 4lb. and tench 5lb. To Rennes the fame ftrange wild mixture of defert and cultivation, half favage, half human.——31 miles.

The 2d. Rennes is well built, and has two good fquares; that particularly of Louis XV. where is his ftatue. The parliament being in exile, the houfe is not to be feen. The Benedictines' garden, called the Tabour, is worth viewing. But the object at Rennes moft remarkable at prefent is a camp, with a marfhal of France (de Stainville), and four regiments of infantry, and two of dragoons, clofe to the gates. The difcontents of the people have been doubled, firft on account of the high price of bread, and fecondly for the baniihment of the parliament. The former caufe is natural enough;

but why the people ſhould love their parliament was what I could not underſtand, ſince the members, as well as of the ſtates, are all noble, and the diſtinction between the nobleſſe and roturiers no where ſtronger, more offenſive, or more abominable than in Bretagne. They aſſured me, however, that the populace have been blown up to violence by every art of deception, and even by money diſtributed for that purpoſe. The commotions roſe to ſuch a height before the camp was eſtabliſhed, that the troops here were utterly unable to keep the peace. Monſieur Argentaiſe, to whom I had brought letters, had the goodneſs, during the four days I was here, to ſhew and explain every thing to be ſeen. I find Rennes very cheap; and it appears the more ſo to me juſt come from Normandy, where every thing is extravagantly dear. The table d'hôte, at the grand maiſon, is well ſerved; they give two courſes, containing plenty of good things, and a very ample regular deſert; the ſupper one good courſe, with a large joint of mutton, and another good deſert; each meal, with the common wine, 40 ſous, and for 20 more you have very good wine, inſtead of the ordinary ſort; 30 ſous for the horſe: thus, with good wine, it is no more than ſix livres, 10 ſous a day, or 5s. 10d. Yet a camp of which they complain has raiſed prices enormouſly.

The 5th. To Montauban. The poor people ſeem poor indeed; the children terribly ragged, if poſſible worſe clad than if with no cloaths at all; as to ſhoes and ſtockings they are luxuries. A beautiful girl of ſix or ſeven years, playing with a ſtick, and ſmiling under ſuch a bundle of rags as made my heart ache to ſee her; they did not beg, and when I gave them any thing, ſeemed more ſurprized than obliged. One third of what I have ſeen of this province ſeems uncultivated, and nearly all of it in miſery. What have kings, and miniſters, and parliaments, and ſtates to anſwer for, ſeeing millions of hands that would be induſtrious, yet idle and ſtarving, through the execrable maxims of deſpotim, or the equally deteſtable prejudices of a feudal nobility? Sleep at the lion d'or, at Montauban, an abominable hole.——20 miles.

The 6th. The ſame encloſed country to Brooms; but near that town improves to the eye, from being more hilly. At the little town of Lamballe, there are above fifty families of nobleſſe that live here in winter, who reſide on their eſtates in the ſummer. There is probably as much foppery and nonſenſe in their circles, and for what I know as much happineſs, as in thoſe of Paris. Both would be better employed in cultivating their lands, and rendering the poor induſtrious.——30 miles.

The 7th. Upon leaving Lamballe, the country immediately changes. The Marquis d'Urvoy, whom I met at Rennes, and who has a good eſtate at St. Brieux, gave me a letter for his agent, who anſwered my queſtions.——12½ miles.

The 8th. To Guingamp, a ſombre encloſed country. Paſs Chateaulandrin, and enter Bas Bretagne. One recognizes at once another people, meeting numbers who have not more French than *Je ne ſai pas ce que vous dites*, or *Je n'entend rien*. Enter Guingamp by gateways, towers, and battlements, apparently of the oldeſt military architecture; every part denoting antiquity, and in the beſt preſervation. The poor people's habitations are not ſo good; they are miſerable heaps of dirt; no glaſs, and ſcarcely any light; but they have earth chimnies. I was in my firſt ſleep at Belleiſle, when the aubergiſte came to my bedſide, undrew a curtain, that I expected to cover me with ſpiders, to tell me that I had *une jument Angloiſe ſuperbe*, and that a ſeigneur wiſhed to buy it of me: I gave him half a dozen flowers of French eloquence for his impertinence, when he thought proper to leave me and his ſpiders at peace. There was a great *chaſſe* aſſembled. Theſe Bas Bretagne ſeigneurs are capital hunters, it

ſeems, who fix on a blind mare for an object of admiration. A-propos to the breeds of horſes in France; this mare coſt me twenty-three guineas when horſes were dear in England, and had been ſold for ſixteen when they were rather cheaper; her figure may therefore be gueſſed; yet ſhe was much admired, and often in this journey; and as to Bretagne, ſhe rarely met a rival. That province, and it is the ſame in parts of Normandy, is infeſted in every ſtable with a pack of garran poney ſtallions, ſufficient to perpetuate the miſerable breed that is every where ſeen. This villainous hole, that calls itſelf the grand maiſon, is the beſt inn at a poſt town on the great road to Breſt, at which marſhals of France, dukes, peers, counteſſes, and ſo forth, muſt now and then, by the accidents to which long journeys are ſubject, have found themſelves. What are we to think of a country that has made, in the eighteenth century, no better proviſion for its travellers! ——30 miles.

The 9th. Morlaix is the moſt ſingular port I have ſeen. It has but one feature, a vale juſt wide enough for a fine canal with two quays, and two rows of houſes; behind them the mountain riſes ſteep, and woody on one ſide; on the other gardens, rocks, and wood; the effect romantic and beautiful. Trade now very dull, but flouriſhed much in the war.——20 miles.

The 10th. Fair day at Landerviſier, which gave me an opportunity of ſeeing numbers of Bas Bretons collected, as well as their cattle. The men dreſs in great trowſer-like breeches, many with naked legs, and moſt with wooden ſhoes, ſtrong marked features like the Welch, with countenances a mixture of half energy, half lazineſs; their perſons ſtout, broad, and ſquare. The women furrowed without age by labour, to the utter extinction of all ſoftneſs of ſex. The eye diſcovers them at firſt glance to be a people abſolutely diſtinct from the French. Wonderful that they ſhould be found ſo, with diſtinct language, manners, dreſs, &c. after having been ſettled here 1300 years. ——35 miles.

The 11th. I had reſpectable letters, and to reſpectable people at Breſt, in order to ſee the dock-yard, but they were vain; Monſieur le Chevalier de Tredairne particularly applied for me earneſtly to the commandant, but the order, contrary to its being ſhewn either to Frenchmen or foreigners, was too ſtrict to be relaxed without an expreſs direction from the miniſter of the marine, given very rarely, and to which, when it does come, they pay but an unwilling obedience. Monſieur Tredairne, however, informed me, that Lord Pembroke ſaw it not long ſince by means of ſuch an order: and he remarked himſelf, knowing that I could not fail doing the ſame, that it was ſtrange to ſhew the port to an Engliſh general and governor of Portſmouth, yet deny it to a farmer. He however aſſured me, that the Duke of Chartres went away but the other day without being permitted to ſee it. Gretry's muſic at the theatre, which, though not large, is neat and elegant, was not calculated to put me in good humour; it was Panurge.—Breſt is a well built town, with many regular and handſome ſtreets, and the quay where many men of war are laid up, and other ſhipping, has much of that life and motion which animates a ſea-port.

The 12th. Return to Landernau, where at the Duc de Chartres, which is the beſt and cleaneſt inn in the biſhoprick, as I was going to dinner, the landlord told me, there was a *Monſieur un homme comme il faut*, and the dinner would be better if we united; *de tout mon cœur*. He proved a Bas Breton noble, with his ſword and a little miſerable but nimble nag. This ſeigneur was ignorant that the Duke de Chartres, the other day at Breſt, was not the duke that was in Monſieur d'Orvillier's fleet. Take the road to Nantes.——25 miles.

The 13th. The country to Chateaulin more mountainous; one-third waſte. All this region far inferior to Leon and Traguer: no exertions, nor any marks of intelligence, yet all near to the great navigation and market of Breſt water, and the ſoil good. Quimper, though a biſhopric, has nothing worth ſeeing but its promenades, which are among the fineſt in France.——25 miles.

The 14th. Leaving Quimper, there ſeem to be more cultivated features; but this only for a moment; waſtes—waſtes—waſtes.—Reach Quimperlay.——27 miles.

The 15th. The ſame ſombre country to l'Orient, but with a mixture of cultivation and much wood.—I found l'Orient ſo full of fools, gaping to ſee a man of war launched, that I could get no bed for myſelf, nor ſtable for my horſe at the epeé royale. At the cheval blanc, a poor hole, I got my horſe crammed among twenty others like herrings in a barrel, but could have no bed. The Duke de Briſſac, with a ſuite of officers, had no better ſucceſs. If the governor of Paris could not, without trouble, get a bed at l'Orient, no wonder Arthur Young found obſtacles. I went directly to deliver my letters, found Monſ. Beſné, a merchant, at home; he received me with a frank civility better than a million of compliments; and the moment he underſtood my ſituation, offered me a bed in his houſe, which I accepted. The Tourville, of eighty-four guns, was to be launched at three o'clock, but put off till the next day, much to the joy of the aubergiſtes, &c. who were well pleaſed to ſee ſuch a ſwarm of ſtrangers kept another day. I wiſhed the ſhip in their throats, for I thought only of my poor mare being ſqueezed a night among the Bretagne garrans; ſixpence, however, to the garçon, had effects marvellouſly to her eaſe. The town is modern, and regularly built, the ſtreets diverge in rays from the gate, and are croſſed by others at right angles, broad, handſomely built, and well paved; with many houſes that make a good figure. But what makes l'Orient more known, is, being the appropriated port for the commerce of India, containing all the ſhipping and magazines of the company. The latter are truly great, and ſpeak the royal munificence from which they aroſe. They are of ſeveral ſtories, and all vaulted in ſtone, in a ſplendid ſtile, and of vaſt extent. But they want, at leaſt at preſent, like ſo many other magnificent eſtabliſhments in France, the vigour and vivacity of an active commerce. The buſineſs tranſacting here ſeems trifling. Three eighty-four gun ſhips, the Tourville, l'Eole, and Jean Bart, with a thirty-two gun frigate, are upon the ſtocks. They aſſured me, that the Tourville has been only nine months building: the ſcene is alive, and fifteen large men of war being laid up here in ordinary, with ſome Indiamen and a few traders, render the port a pleaſing ſpectacle. There is a beautiful round tower, a hundred feet high, of white ſtone, with a railed gallery at top; the proportions light and agreeable; it is for looking out and making ſignals. My hoſpitable merchant I find a plain unaffected character, with ſome whimſical originalities, that make him more intereſting; he has an agreeable daughter, who entertains me with ſinging to her harp. The next morning the Tourville quitted her ſtocks, to the muſic of the regiments, and the ſhouts of thouſands collected to ſee it. Leave l'Orient. Arrive at Hennebon.——7½ miles.

The 17th. To Auray, the eighteen pooreſt miles I have yet ſeen in Bretagne. Good houſes of ſtone and ſlate, without glaſs. Auray has a little port, and ſome ſloops, which always give an air of life to a town. To Vannes, the country varied, but landes the more permanent feature. Vannes is not an inconſiderable town, but its greateſt beauty is its port and promenade.

The 18th. To Muſiliac. Belleiſle with the ſmaller ones, d'Herdic and d'Honat, are in ſight. Muſiliac, if it can boaſt of nothing elſe, may at leaſt vaunt its cheapneſs.

I had for dinner two good flat fiſh, a diſh of oyſters, ſoup, a fine duck roaſted; with an ample deſert of grapes, pears, walnuts, biſcuits, liqueur, and a pint of good Bourdeaux wine: my mare, beſides hay, had three-fourths of a peck of corn, and the whole 56s. 2s. to the fille and two to the garçon, in all 2s. 6d. Paſs landes—landes—landes—to la Roche Bernard. The view of the river Villaine is beautiful from the boldneſs of the ſhores; there are no inſipid flats; the river is two-thirds of the width of the river Thames at Weſtminſter, and would be equal to any thing in the world if the ſhores were woody, but they are the ſavage waſtes of this country.——33 miles.

The 19th. Turned aſide to Auvergnac, the ſeat of the Count de la Bourdonays, to whom I had a letter from the Ducheſs d'Anville, as a perſon able to give me every ſpecies of intelligence relative to Bretagne, having for five-and-twenty years been firſt ſyndic of the nobleſſe. A fortuitous jumble of rocks and ſteeps could ſcarcely form a worſe road than theſe five miles: could I put as much faith in two bits of wood laid over each other, as the good folks of the country do, I ſhould have croſſed myſelf, but my blind friend, with the moſt incredible ſure-footedneſs, carried me ſafe over ſuch places, that if I had not been in the conſtant habit of the ſaddle, I ſhould have ſhuddered at, though guided by eyes keen as eclipſes; for I ſuppoſe a finer racer, on whoſe velocity ſo many fools have been ready to loſe their money, muſt have good eyes, as well as good legs. Such a road, leading to ſeveral villages, and one of the firſt noblemen of the province, ſhews what the ſtate of ſociety muſt be;—no communication—no neighbourhood—no temptation to the expences which flow from ſociety; a mere ſecluſion to ſave money in order to ſpend it in towns. The Count received me with great politeneſs; I explained to him my plan and motives for travelling in France, which he was pleaſed very warmly to approve, expreſſing his ſurpriſe that I ſhould attempt ſo large an undertaking, as ſuch a ſurvey of France, unſupported by my government; I told him he knew very little of our government, if he ſuppoſed they would give a ſhilling to any agricultural project or projector; that whether the miniſter were whig or tory made no difference, the party of the plough never yet had one on its ſide; and that England has had many Colberts, but not one Sully. This led to much intereſting converſation on the balance of agriculture, manufactures, and commerce, and on the means of encouraging them; and, in reply to his enquiries, I made him underſtand their relations in England, and how our huſbandry flouriſhed in ſpite of our miniſters, merely by the protection which civil liberty gives to property: and conſequently that it was in a poor ſituation, comparatively with what it would have been in, had it received the ſame attention as manufactures and commerce. I told M. de la Bourdonaye that his province of Bretagne ſeemed to me to have nothing in it but privileges and poverty; he ſmiled, and gave me ſome explanations that are important; but no nobleman can ever probe this evil as it ought to be done, reſulting as it does from the privileges going to themſelves, and the poverty to the people. He ſhewed me his plantations, which are very fine and well thriven, and ſhelter him thoroughly on every ſide, even from the S.W. ſo near to the ſea; from his walks we ſee Belleiſle and its neighbours, and a little iſle or rock belonging to him, which he ſays the King of England took from him after Sir Edward Hawke's victory, but that his majeſty was kind enough to leave him his iſland after one night's poſſeſſion.——20 miles.

The 20th. Take my leave of Monſieur and Madame de la Bourdonaye, to whoſe politeneſs as well as friendly attentions I am much obliged. Towards Nazaire there is a fine view of the mouth of the Loire, from the riſing grounds, but the headlands

that

that form the embouchure are low, which takes off from that greatneſs of the effect which highlands give to the mouth of the Shannon. The ſwelling boſom of the Atlantic boundleſs to the right. Savanal is poverty itſelf.——33 miles.

The 21ſt. Come to an improvement in the midſt of theſe deſerts, four good houſes of ſtone and ſlate, and a few acres run to wretched graſs, which have been tilled, but all ſavage, and become almoſt as rough as the reſt. I was afterwards informed that this improvement, as it is called, was wrought by Engliſhmen, at the expence of a gentleman they ruined as well as themſelves.—I demanded how it had been done? Pare and burn, and ſow wheat, then rye, and then oats. Thus it is for ever and ever! the ſame follies, the ſame blundering, the ſame ignorance; and then all the fools in the country ſaid, as they do now, that theſe waſtes are good for nothing. To my amazement find the incredible circumſtance, that they reach within three miles of the great commercial city of Nantes! This is a problem and a leſſon to work at, but not at preſent. Arrive—go to the theatre, new built of fine white ſtone, having a magnificent portico of eight elegant Corinthian pillars in front, and four others, to ſeparate the portico from a grand veſtibule. Within all is gold and painting, and *a coup d'œil* at entering, that ſtruck me forcibly. It is, I believe, twice as large as Drury-Lane, and five times as magnificent. It was Sunday, and therefore full. *Mon Dieu!* cried I to myſelf, do all the waſtes, the deſerts, the heath, ling, furz, broom, and bog, that I have paſſed for three hundred miles, lead to this ſpectacle? What a miracle, that all this ſplendour and wealth of the cities in France ſhould be ſo unconnected with the country! There are no gentle tranſitions from eaſe to comfort, from comfort to wealth: you paſs at once from beggary to profuſion,—from miſery in mud cabins to Mademoiſelle St. Huberti in ſplendid ſpectacles at 500 livres a night (21l. 17s. 6d.) The country deſerted, or if a gentleman in it, you find him in ſome wretched hole, to ſave that money which is laviſhed with profuſion in the luxuries of a capital.——20 miles.

The 22d. Deliver my letters. As much as agriculture is the chief object of my journey, it is neceſſary to acquire ſuch intelligence of the ſtate of commerce, as can be beſt done from merchants, for abundance of uſeful information is to be gained, without putting any queſtions that a man would be cautious of anſwering, and even without putting any queſtions at all. Monſ. Riédy was very polite, and ſatisfied many of my enquiries; I dined once with him, and was pleaſed to find the converſation take an important turn on the relative ſituations of France and England in trade, particularly in the Weſt-Indies. I had a letter alſo to Monſ. Epivent, conſilier in the parliament of Rennes, whoſe brother, Monſ. Epivent de la Villeſboiſnet, is a very conſiderable merchant here. It was not poſſible for any perſon to be more obliging than theſe two gentlemen; their attentions to me were marked and friendly, and rendered a few days reſidence here equally inſtructive and agreeable. The town has that ſign of proſperity of new buildings, which never deceives. The quarter of the comedie is magnificent, all the ſtreets at right angles and of white ſtone. I am in doubt whether the hotel de Henri IV. is not the fineſt inn in Europe: Deſſein's at Calais is larger, but neither built, fitted up, nor furniſhed like this, which is new. It coſt 400,000 livres. (17,500l.) furniſhed, and is let at 14,000 livres per annum (612l. 10s.) with no rent for the firſt year. It contains ſixty beds for maſters, and twenty-five ſtalls for horſes. Some of the apartments of two rooms, very neat, are 6 livres a day; one good 3 livres, but for merchants 5 livres per diem for dinner, ſupper, wine, and chamber, and 35s. for his horſe. It is, without compariſon, the firſt inn I have ſeen in France, and very cheap. It is in a ſmall ſquare cloſe to the theatre, as convenient for

pleaſure or trade as the votaries of either can wiſh. The theatre coſt 450,000 livres, and lets to the comedians at 17,000 livres a year; it holds, when full, to the value of 120 louis d'or. The land the inn ſtands on was bought at 9 livres a foot: in ſome parts of the city it ſells as high as 15 livres. The value of the ground induces them to build ſo high as to be deſtructive of beauty. The quay has nothing remarkable; the river is choaked with iſlands, but at the furtheſt part next to the ſea is a large range of houſes regularly fronted. An inſtitution common in the great commercial towns of France, but particularly flouriſhing in Nantes, is a chambre de lecture, or what we ſhould call a book-club, that does not divide its books, but forms a library. There are three rooms, one for reading, another for converſation, and the third is the library; good fires in winter are provided, and wax candles. Meſſrs. Epivent had the goodneſs to attend me on a water expedition, to view the eſtabliſhment of Mr. Wilkinſon, for boring cannon, in an iſland in the Loire below Nantes. Until that well known Engliſh manufacturer arrived, the French knew nothing of the art of caſting cannon ſolid, and then boring them. Mr. Wilkinſon's machinery, for boring four cannons, is now at work, moved by tide wheels; but they have erected a ſteam engine, with a new apparatus for boring ſeven more; M. de la Motte, who has the direction of the whole, ſhewed us alſo a model of this engine, about ſix feet long, five high, and four or five broad; which he worked for us, by making a ſmall fire under the boiler that is no bigger than a large tea-kettle; one of the beſt machines for a travelling philoſopher that I have ſeen. Nantes is as enflammeé in the cauſe of liberty, as any town in France can be; the converſations I witneſſed here prove how great a change is effected in the minds of the French, nor do I believe it will be poſſible for the preſent government to laſt half a century longer, unleſs the cleareſt and moſt decided talents be at the helm. The American revolution has laid the foundation of another in France, if government do not take care of itſelf *. Upon the 23d one of the twelve priſoners from the Baſtile arrived here—he was the moſt violent of them all—and his impriſonment has been far enough from ſilencing him.

The 25th. It was not without regret that I quitted a ſociety both intelligent and agreeable, nor ſhould I feel comfortably if I did not hope to ſee Meſſrs. Epivents again; I have little chance of being at Nantes, but if they come a ſecond time to England, I have a promiſe of ſeeing them at Bradfield. The younger of theſe gentlemen ſpent a fortnight with Lord Shelburne at Bowood, which he remembers with much pleaſure; Col. Barré and Dr. Prieſtley were there at the ſame time. To Ancenis is all incloſed: for ſeven miles many ſeats.——22½ miles.

The 26th. To the ſcene of the vintage I had not before been witneſs to ſo much advantage as here; laſt autumn the heavy rains made it a melancholy buſineſs. At preſent all is life and activity. The country all thickly and well incloſed. Glorious view of the Loire from a village, the laſt of Bretagne, where is a great barrier acroſs the road and cuſtom houſes, to ſearch every thing coming thence. The Loire here takes the appearance of a lake large enough to be intereſting. There is on both ſides an accompaniment of wood, which is not univerſal on this river. The addition of towns, ſteeples, windmills, and a great range of lovely country, covered with vines; the character gay as well as noble. Enter Anjou. Paſs St. George. For ten miles quit the Loire and meet it again at Angers. Letters from Monſ. de Brouſſonet; but he is unable to inform me in what part of Anjou was the reſidence of the Marquis de Tourbilly; to

* It wanted no great ſpirit of prophecy to foretel this; but the latter events have ſhewn that I was very wide of the mark when I talked of fifty years.

find

find out that nobleman's farm, where he made thoſe admirable improvements, which he deſcribes in the Memoire ſur les defrichemens, was ſuch an object to me, I was determined to go to the place, let the diſtance out of my way be what it might.——30 miles.

The 27th. Among my letters, one to Monſ. de la Livoniere, perpetual ſecretary of the Society of Agriculture here. I found he was at his country ſeat, two leagues off at Magnianne. On my arrival, he was ſitting down to dinner with his family; not being paſt twelve, I thought to have eſcaped this awkwardneſs; but both he himſelf and Madame prevented all embarraſſment by very unaffectedly deſiring me to partake with them; and making not the leaſt derangement either in table or looks, placed me at once at my eaſe, to an indifferent dinner, garniſhed with ſo much chearfulneſs, that I found it a repaſt more to my taſte than the moſt ſplendid tables could afford. An Engliſh family in the country, ſimilar in ſituation, taken unawares in the ſame way, would receive you with an unquiet hoſpitality, and an anxious politeneſs; and after waiting for a hurry-ſcurry derangement of cloth, table, plates, ſideboard, pot, and ſpit, would give you perhaps ſo good a dinner, that none of the family, between anxiety and fatigue, could ſupply one word of converſation, and you would depart under cordial wiſhes that you might never return. This folly, ſo common in England, is never met with in France: the French are quiet in their houſes, and do things without effort.—Monſieur Livoniere converſed with me much on the plan of my travels, which he commended greatly, but thought it very extraordinary that neither government, nor the Academy of Sciences, nor the Academy of Agriculture, ſhould at leaſt be at the expence of my journey. This idea is purely French; they have no notion of private people going out of their way for the public good, without being paid by the public; nor could he well comprehend me, when I told him that every thing is well done in England, except what is done with public money. I was greatly concerned to find that he could give no intelligence concerning the reſidence of the late Marquis de Tourbilly, as it would be a provoking circumſtance to paſs through all the province without finding his houſe, and afterward hear perhaps that I had been ignorantly within a few miles of it. In the evening return to Angers.——20 miles.

The 28th. To La Flêche. The chateau of Duretal, belonging to the Ducheſs d'Eſtiſſac, is boldly ſituated above the little town of that name, and on the banks of a beautiful river, the ſlopes to which that hang to the ſouth are covered with vines. The country chearful, dry, and pleaſant for reſidence. I enquired here of ſeveral gentlemen for the reſidence of the Marquis de Tourbilly, but all in vain. The 30 miles to La Flêche the road is a noble one, of gravel, ſmooth, and kept in admirable order. La Flêche is a neat, clean, little town, not ill built, on the navigable river that flows to Duretal; but the trade is inconſiderable. My firſt buſineſs here, as every where elſe in Anjou, was to enquire for the reſidence of the Marquis de Tourbilly. I repeated my enquiries till I found that there was a place not far from La Flêche, called Tourbilly, but not what I wanted, as there was no Monſ. de Tourbilly there, but a Marquis de Galway, who inherited Tourbilly from his father. This perplexed me more and more; and I renewed my enquiries with ſo much eagerneſs, that ſeveral people, I believe, thought me half mad. At laſt I met with an ancient lady who ſolved my difficulty; ſhe informed me, that Tourbilly, about twelve miles from La Flêche, was the place I was in ſearch of: that it belonged to the marquis of that name, who had written ſome books ſhe believed; that he died twenty years ago inſolvent; that the father of the preſent Marquis de Galway bought the eſtate. This was ſufficient for my purpoſe; I determined to take a guide the next morning, and, as I could not viſit the marquis, at leaſt

ſee the remains of his improvements. The news, however, that he died inſolvent, hurt me very much; it was a bad commentary on his book, and I foreſaw, that whoever I ſhould find at Tourbilly, would be full of ridicule on a huſbandry that proved the loſs of the eſtate on which it was practiſed.——30 miles.

The 29th. This morning I executed my project; my guide was a countryman with a good pair of legs, who conducted me acroſs a range of ſuch ling waſtes as the Marquis ſpeaks of in his memoir. They appear boundleſs here; and I was told that I could travel many—many days, and ſee nothing elſe: what fields of improvement to make, not to loſe eſtates! At laſt we arrived at Tourbilly, a poor village, of a few ſcattered houſes, in a vale between two riſing grounds, which are yet heath and waſte; the chateau in the midſt, with plantations of fine poplars leading to it. I cannot eaſily expreſs the anxious inquiſitive curioſity I felt to examine every ſcrap of the eſtate; no hedge or tree, no buſh but what was intereſting to me: I had read the tranſlation of the Marquis's hiſtory of his improvements in Mr. Mill's huſbandry, and thought it the moſt intereſting morſel I had met with, long before I procured the original *Memoire ſur les defrichemens;* and determined, that if ever I ſhould go to France, to view improvements the recital of which had given me ſo much pleaſure. I had neither letter nor introduction to the preſent owner, the Marquis de Galway. I therefore ſtated to him the plain fact, that I had read Monſ. de Tourbilly's book with ſo much pleaſure, that I wiſhed much to view the improvements deſcribed in it; he anſwered me directly in good Engliſh, received me with ſuch cordiality of politeneſs, and ſuch expreſſions of regard for the purport of my travels, that he put me perfectly in humour with myſelf, and conſequently with all around me. He ordered breakfaſt *a l'Anglois*—gave orders for a man to attend us in our walk, who I deſired might be the oldeſt labourer to be found of the late Marquis de Tourbilly's. I was pleaſed to hear that one was alive who had worked with him from the beginning of his improvement. At breakfaſt Monſ. de Galway introduced me to his brother, who alſo ſpoke Engliſh, and regretted that he could not do the ſame to Madame de Galway, who was confined to her chamber: he then gave me an account of his father's acquiring the eſtate and chateau of Tourbilly. His great-grandfather came to Bretagne with King James II. when he fled from the Engliſh throne; ſome of the ſame family are ſtill living in the county of Cork, particularly at Lotta. His father was famous in that province for his ſkill in agriculture; and, as a reward for an improvement he had wrought on the landes, the ſtates of the province gave him a waſte tract in the iſland of Belliſle, which at preſent belongs to his ſon. Hearing that the Marquis de Tourbilly was totally ruined, and his eſtates in Anjou to be ſold by the creditors, he viewed them, and finding the land very improveable, made the purchaſe, giving about 15,000 louis d'ors for Tourbilly, a price which made the acquiſition highly advantageous, notwithſtanding his having bought ſome lawſuits with the eſtate. It is about three thouſand arpents, nearly contiguous, the ſeigneury of two pariſhes, with the haute juſtice, &c. a handſome, large, and convenient chateau, offices very compleat, and many plantations, the work of the celebrated man concerning whom my enquiries were directed. I was almoſt breathleſs on the queſtion of ſo great an improver being ruined! "You are unhappy that a man ſhould be ruined by an art you love ſo much." Preciſely ſo. But he eaſed me in a moment, by adding, that if the marquis had done nothing but farm and improve, he had never been ruined. One day, as he was boring to find marl, his ill ſtars diſcovered a vein of earth, perfectly white, which on trial did not efferveſce with acids. It ſtruck him as an acquiſition for porcelain—he ſhewed it to a manufacturer—it was pronounced excellent: the marquis's imagination took fire, and he thought of converting the poor village of Tourbilly into a town, by a fabric of china

—he went to work on his own account—raiſed buildings—and got together all that was neceſſary, except ſkill and capital. In fine, he made good porcelain, was cheated by his agents, and people, and at laſt ruined. A ſoap manufactory, which he eſtabliſhed alſo, as well as ſome law-ſuits relative to other eſtates, had their ſhare in cauſing his misfortunes: his creditors ſeized the eſtate, but permitted him to adminiſter it till his death, when it was ſold. The only part of the tale that leſſened my regret was, that, though married, he left no family; ſo that his aſhes will ſleep in peace, without his memory being reviled by an indigent poſterity. His anceſtors acquired the eſtate by marriage in the fourteenth century. His agricultural improvements, Monſ. Galway obſerved, certainly did not hurt him; they were not well done, nor well ſupported by himſelf, but they rendered the eſtate more valuable; and he never heard that they had brought him into any difficulties. I cannot but obſerve here, that there ſeems a fatality to attend country gentlemen whenever they attempt trade or manufactures. In England I never knew a man of landed property, with the education and habits of landed proprietors, attempt either, but they were infallibly ruined; or, if not ruined, conſiderably hurt by them. Whether it be that the ideas and principles of trade have ſomething in them repugnant to the ſentiments which ought to flow from education—or whether the habitual inattention of country gentlemen to ſmall gains and ſavings, which are the ſoul of trade, render their ſucceſs impoſſible; from whatever it may ariſe, the fact is, not one in a million ſucceeds. Agriculture, in the improvement of their eſtates, is the only proper and legitimate ſphere of their induſtry; and though ignorance renders this ſometimes dangerous, yet they can with ſafety attempt no other. The old labourer, whoſe name is Piron (as propitious I hope to farming as to wit), being arrived, we ſallied forth to tread what was to me a ſort of claſſic ground. I ſhall dwell but little on the particulars: they make a much better figure in the Memoire ſur les defrichemens than at Tourbilly; the meadows, even near the chateau, are yet very rough; the general features are rough: but the alleys of poplars, of which he ſpeaks in the memoirs, are nobly grown indeed, and do credit to his memory; they are ſixty or ſeventy feet high, and in girt a foot: the willows are equal. Why were they not oak? to have tranſmitted to the farming travellers of another century the pleaſure I feel in viewing the more periſhable poplars of the preſent time—the cauſeways near the caſtle muſt have been arduous works. The mulberries are in a ſtate of neglect; Monſ. Galway's father not being fond of that culture, deſtroyed many, but ſome hundreds remain, and I was told that the poor people had made as far as twenty-five pound of ſilk, but none attempted at preſent. The meadows had been drained and improved near the chateau to the amount of fifty or ſixty arpents, they are now ruſhy, but yet valuable in ſuch a country. Near them is a wood of Bourdeaux pines, ſown thirty-five years ago, and now worth five or ſix livres each. I walked into the boggy bit that produced the great cabbages he mentioned, it joins a large and moſt improveable bottom. Piron informed me that the marquis pared and burnt about one hundred arpents in all, and folded two hundred and fifty ſheep. On our return to the chateau, Monſieur de Galway, finding what an enthuſiaſt I was in agriculture, ſearched among his papers to find a manuſcript of the Marquis de Tourbilly's, written with his own hand, which he had the goodneſs to make me a preſent of, and which I ſhall keep amongſt my curioſities in agriculture. The polite reception I had met from Monſ. Galway, and the friendly attention he had given to my views, entering into the ſpirit of my purſuit, and wiſhing to promote it, would have induced me very chearfully to have accepted his invitation of remaining ſome days with him; had I not been apprehenſive that the moment of Madame Galway's being in bed would render ſuch an unlooked-for viſit inconvenient. I took

my leave therefore in the evening, and returned to La Flêche by a different road.——25 miles.

The 30th. A quantity of Moors to Le Mans; they aſſured me at Guerces, that they are here ſixty leagues in circumference, with no great interruptions. At Le Mans I was unlucky in Monſ. Tournai, ſecretary to the Society of Agriculture, being abſent.—28 miles.

October 1. Towards Alençon, the country a contraſt to what I paſſed yeſterday; good land, well incloſed, well built, and tolerably cultivated, with marling. A noble road of dark coloured ſtone, apparently ferruginous, that binds well. Near Beaumon vineyards in ſight on the hills, and theſe are the laſt in thus travelling northwards; the whole country finely watered by rivers and ſtreams, yet no irrigation.——30 miles.

The 2d. Four miles to Nouant, of rich herbage, under bullocks.——28 miles.

The 3d. From Gacé towards Bernay. Paſs the Marechal Duc de Broglio's chateau at Broglio, which is ſurrounded by ſuch a multiplicity of clipt hedges, double, treble, and quadruple, that he muſt half maintain the poor of the little town by clipping.——25 miles.

The 4th. Leave Bernay; where, and at other places in this country, are many mud walls, made of rich red loam, thatched at top, and well planted with fruit trees: a hint well worth copying in England, where brick and ſtone are dear. Come to one of the richeſt countries in France, or indeed in Europe. There are few finer views than the firſt of Elbeuf, from the eminence above it, which is high; the town at your feet in the bottom; on one ſide the Seine preſents a noble reach, broken by wooded iſlands, and an immenſe amphitheatre of hill, covered with a prodigious wood, ſurrounding the whole.

The 5th. To Rouen, where I found the hotel royal, a contraſt to that dirty, impertinent, cheating hole the pomme de pin. In the evening to the theatre, which is not ſo large I think as that of Nantes, but not comparable in elegance or decoration; it is ſombre and dirty. Gretry's Caravanne de Caire, the muſic of which, though too much chorus and noiſe, has ſome tender and pleaſing paſſages. I like it better than any other piece I have heard of that celebrated compoſer. The next morning waited on Monſ. Scanegatty, profeſſeur de phyſique dans la Societé Royale d'Agriculture; he received me with politeneſs. He has a conſiderable room furniſhed with mathematical and philoſophical inſtruments and models. He explained ſome of the latter to me that are of his own invention, particularly one of a furnace for calcining gypſum, which is brought here in large quantities from Montmartre. Waited on Meſſrs. Midy, Roſſec and Co. the moſt conſiderable wool merchants in France, who were ſo kind as to ſhew me a great variety of wools, from moſt of the European countries, and permitted me to take ſpecimens. The next morning I went to Darnetel, where Monſ. Curmer ſhewed me his manufacture. Return to Rouen, and dined with Monſ. Portier, directeur general des fermes, to whom I had brought a letter from the Duc de la Rochefoucauld. The converſation turned, among other ſubjects, on the want of new ſtreets at Rouen, on compariſon with Havre, Nantes, and Bourdeaux; at the latter places it was remarked, that a merchant makes a fortune in ten or fifteen years, and builds; but at Rouen, it is a commerce of œconomy, in which a man does not grow rich ſo ſoon, and therefore unable with prudence to make the ſame exertions. Every perſon at table agreed in another point which was diſcuſſed, that the wine provinces are the pooreſt in all France: I urged the produce being greater per arpent by far than of other lands; they inſiſted however on the fact as generally known and admitted. In the evening at the theatre, Madame du Freſne entertained me greatly; ſhe is an excellent actreſs, never over-does her parts,

and makes one feel by feeling herſelf. The more I ſee of the French theatre, the more I am forced to acknowledge the ſuperiority to our own, in the number of good performers, and in the fewneſs of bad ones; and in the quantity of dancers, ſingers, and perſons on whom the buſineſs of the theatre depends, all eſtabliſhed on a great ſcale. I remark, in the ſentiments that are applauded, the ſame generous feelings in the audience in France, that have many times in England put me in good humour with my countrymen. We are too apt to hate the French; for myſelf I ſee many reaſons to be pleaſed with them; attributing faults very much to their government; perhaps in our own, our roughneſs and want of good temper are to be traced to the ſame origin.

The 8th. My plan had for ſome time been to go directly to England, on leaving Rouen, for the poſt-offices had been cruelly uncertain. I had received no letters for ſome time from my family, though I had written repeatedly to urge it; they paſſed to a perſon at Paris who was to forward them; but ſome careleſſneſs, or other cauſe, impeded all, at a time that others, directed to the towns I paſſed, came regularly; I had fears that ſome of my family were ill, and that they would not write bad news to me in a ſituation where knowing the worſt could have no influence in changing it for better. But the deſire I had to accept the invitation to La Roche Guyon, of the Ducheſs d'Anville and the Duc de la Rochefoucauld, prolonged my journey, and I ſet forward on this further excurſion. A truly noble view from the road above Rouen; the city at one end of the vale, with the river flowing to it perfectly chequered with iſles of wood. The other divides into two great channels, between which the vale is all ſpread with iſlands, ſome arable, ſome meadow, and much wood on all. Paſs Pont l'Arch to Louviers. I had letters for the celebrated manufacturer Monſ. Decretot, who received me with a kindneſs that ought to have ſome better epithet than polite; he ſhewed me his fabric, unqueſtionably the firſt woollen one in the world, if ſucceſs, beauty of fabric, and an inexhauſtible invention to ſupply with taſte all the cravings of fancy, can give the merit of ſuch ſuperiority. Perfection goes no further than the Vigonia cloths of Monſ. Decretot, at 110 livres (4l. 16s. 3d.) the aulne. He ſhewed me his cotton-mills alſo, under the direction of two Engliſhmen. Near Louviers is a manufacture of copper-plates for the bottoms of the King's ſhips; a colony of Engliſhmen. I ſupped with Monſ. Decretot, paſſing a very pleaſant evening in the company of ſome agreeable ladies.——17 miles.

The 9th. By Gaillon to Vernon; the vale flat rich arable. Among the notes I had long ago taken of objects to ſee in France, was the plantation of mulberries, and the ſilk eſtabliſhment of the Marechal de Belleiſle, at Biſſy, near Vernon; the attempts repeatedly made by the ſociety for the encouragement of arts, at London, to introduce ſilk into England, had made the ſimilar undertakings in the north of France more intereſting. I accordingly made all the enquiries that were neceſſary for diſcovering the ſucceſs of this meritorious attempt. Biſſy is a fine place, purchaſed on the death of the Duc de Belleiſle by the Duc de Penthievre, who has but one amuſement, which is that of varying his reſidence at the numerous ſeats he poſſeſſes in many parts of the kingdom. There is ſomething rational in this taſte; I ſhould like myſelf to have a ſcore of farms from the vale of Valencia to the Highlands of Scotland, and to viſit and direct their cultivation by turns. From Vernon, croſs the Seine, and mount the chalk hills again; after which to La Roche Guyon, the moſt ſingular place I have ſeen. Madame d'Anville and the Duc de la Rochefoucauld received me in a manner that would have made me pleaſed with the place had it been in the midſt of a bog. It gave me pleaſure to find alſo the Ducheſs de la Rochefoucauld here, with whom I had paſſed ſo much agreeable time at Bagnere de Luchon, a thoroughly good woman, with that ſimplicity

of

of character, which is too often baniſhed by pride or family or foppery of rank. The Abbé Rochon, the celebrated aſtronomer, of the Academy of Sciences, with ſome other company, which, with the domeſtics and trappings of a Grand Seigneur, gave La Roche Guyon exactly the reſemblance of the reſidence of a great Lord in England. Europe is now ſo much aſſimilated, that if one go to a houſe where the fortune is 15 or 20,000l. a-year, we ſhall find in the mode of living much more reſemblance than a young traveller will ever be prepared to look for.——23 miles.

The 10th. This is one of the moſt ſingular places I have been at. The chalk rock has been cut perpendicularly, to make room for the chateau. The kitchen, which is a large one, vaſt vaults, and extenſive cellars (which, by the way, are magnificently filled,) with various other offices, are all cut out of the rock, with merely fronts of brick; the houſe is large, containing thirty-eight apartments. The preſent Ducheſs has added a handſome ſaloon of forty-eight feet long, and well proportioned, with four fine tablets of the Gobelin tapeſtry, alſo a library well filled. Here I was ſhewed the ink-ſtand that belonged to the famous Louvois, the miniſter of Louis XIV. known to be the identical one from which he ſigned the revocation of the edict of Nantes, and I ſuppoſe alſo the order to Turenne to burn the Palatinate. This Marquis de Louvois was grandfather to the two Ducheſſes d'Anville and d'Eſtiſſac, who inherited all his eſtate, as well as their own family fortune of the houſe of La Rochefoucauld, from which family I conceive, and not from Louvois, they inherited their diſpoſitions. From the principal apartment there is a balcony that leads to the walks which ſerpentine up the mountain. Like moſt French ſeats, there is a town, and a great *potager* to remove, before it would be conſonant with Engliſh ideas. Biſſy, the Duc de Penthievre's, is juſt the ſame; before the chateau there is a gently falling vale with a little ſtream through it, that admits of the greateſt improvements in reſpect to lawn and water, but in full front of the houſe they have placed a great kitchen-garden, with walls enough for a fortreſs. The houſes of the poor people here, as on the Loire in Touraine, are burrowed into the chalk rock, and have a ſingular appearance: here are two ſtreets of them, one above another; they are aſſerted by ſome to be wholeſome, warm in winter, and cool in ſummer; but others thought they were bad for the health of the inhabitants. The Duc de la Rochefoucauld had the kindneſs to order his ſteward to give me all the information I wanted relative to the agriculture of the country, and to ſpeak to ſuch perſons as were neceſſary on points that he was in doubt about. At an Engliſh nobleman's houſe, there would have been three or four farmers aſked to meet me, who would have dined with the family among ladies of the firſt rank. I do not exaggerate, when I ſay, that I have had this at leaſt an hundred times in the firſt houſes of our iſlands. It is, however, a thing that, in the preſent ſtate of manners in France, would not be met with from Calais to Bayonne, except by chance in the houſe of ſome great Lord that had been much in England*, and then not unleſs it were aſked for. The nobility in France have no more idea of practiſing agriculture, and making it an object of converſation, except on the mere theory, as they would ſpeak of a loom, or a bowſprit, than of any other object the moſt remote from their habits and purſuits. I do not ſo much blame them for this neglect, as I do that herd of viſionary and abſurd writers on agriculture, who, from their chambers in cities, have, with an impertinence almoſt incredible, deluged France with nonſenſe and theory, enough to diſguſt and ruin the whole nobility of the kingdom.

The 12th. Part with regret from a ſociety I had every reaſon to be pleaſed with.——35 miles.

*I once knew it at the Duc de Liancourt's.

The

The 13th. The twenty miles to Rouen, the ſame features. Firſt view of Rouen ſudden and ſtriking; but the road doubling, in order to turn more gently down the hill, preſents from an elbow the fineſt view of a town I have ever ſeen; the whole city, with all its churches and convents, and its cathedral proudly riſing in the midſt, fills the vale. The river preſents one reach, croſſed by the bridge, and then dividing into two fine channels, forms a large iſland covered with wood; the reſt of the vale full of verdure and cultivation, of gardens and habitations, finiſh the ſcene, in perfect uniſon with the great city that forms the capital feature. Wait on Monſ. d'Ambournay, ſecretary of the Society of Agriculture, who was abſent when I was here before; we had an intereſting converſation on agriculture, and on the means of encouraging it. I found from this very ingenious gentleman, that his plan of uſing madder green, which many years ago had made ſo much noiſe in the agricultural world, is not practiſed at preſent any where; but he continues to think it perfectly practicable. In the evening to the play, where Madame Cretal, from Paris, acted *Nina;* and it proved the richeſt treat I have received from the French theatre. She performed it with an inimitable expreſſion, with a tenderneſs, a *naiveté*, and an elegance withal, that maſtered every feeling of the heart, againſt which the piece was written: her expreſſion is as delicious, as her countenance is beautiful; in her acting, nothing over-charged, but all kept within the ſimplicity of nature. The houſe was crouded, garlands of flowers and laurel were thrown on the ſtage, and ſhe was crowned by the other actors, but modeſtly removed them from her head, as often as they were placed there.——20 miles.

The 14th. Take the road to Dieppe. Meadows in the vale well watered, and hay now making. Sleep at Tote.——17½ miles.

The 15th. To Dieppe. I was lucky enough to find the paſſage-boat ready to ſail; go on board with my faithful ſure-footed blind friend. I ſhall probably never ride her again, but all my feelings prevent my ſelling her in France.—Without eyes ſhe has carried me in ſafety above 1500 miles; and for the reſt of her life ſhe ſhall have no other maſter than myſelf; could I afford it, this ſhould be her laſt labour: ſome ploughing, however, on my farm, ſhe will perform for me, I dare ſay, chearfully.

Landing at the neat new-built town of Brighthelmſtone, offers a much greater contraſt to Dieppe, which is old and dirty, than Dover does to Calais; and in the Caſtle inn I ſeemed for a while to be in fairy land; but I paid for the enchantment. The next day to Lord Sheffield's, a houſe I never go to, but to receive equal pleaſure and inſtruction. I longed to make one for a ſhort time in the evening library circle, but I took it ſtrangely into my head, from one or two expreſſions, merely accidental in the converſation, coming after my want of letters to France, that I had certainly loſt a child in my abſence; and I hurried to London next morning, where I had the pleaſure of finding my alarm a falſe one; letters enow had been written, but all failed. To Bradfield.——202 miles.

1789.

IN my two preceding journies, the whole weſtern half of France had been croſſed in various directions; and the information I had received, in making them, had made me as much a maſter of the general huſbandry, the ſoil, management and productions, as could be expected, without penetrating in every corner, and reſiding long in various ſtations; a method of ſurveying ſuch a kingdom as France, that would demand ſeveral lives inſtead of years. The eaſtern part of the kingdom remained unexamined. The great maſs of country, formed by the triangle, whoſe three points are Paris, Straſbourg and

and Moulins, and the mountainous region S. E. of the laſt town, preſented in the map an ample ſpace, which it would be neceſſary to paſs before I could have ſuch an idea of the kingdom as I wiſhed to acquire; I determined to make this third effort, in order to accompliſh a deſign which appeared more and more important, the more I reflected on it; and leſs likely to be executed by thoſe whoſe powers are better adapted to the undertaking than mine. The meeting of the States General of France alſo, who were now aſſembled, made it the more neceſſary to loſe no time; for, in all human probability, that aſſembly will be the epoch of a new conſtitution, which will have new effects, and, for what I know, attended with a new agriculture; and to have the regal ſun, in ſuch a kingdom, both riſe and ſet without the territory being known, muſt of neceſſity be regretted by every man ſolicitous for real political knowledge. The events of a century and half, including the brilliant reign of Louis XIV. will for ever render the ſources of the French power intereſting to mankind, and particularly that its ſtate may be known previouſly to the eſtabliſhment of an improved government, as the compariſon of the effects of the old and new ſyſtem will be not a little curious in future.

June 2. To London. At night, *La Generoſità d Aleſſandro*, by Tarchi, in which Signor Marcheſi exerted his powers, and ſung a duet, that made me for ſome moments forget all the ſheep and pigs of Bradfield. I was, however, much better entertained after it, by ſupping at my friend Dr. Burney's, and meeting Miſs Burney; how ſeldom is it that we can meet two characters at once in whom great celebrity deducts nothing from private amiableneſs? How many dazzling ones that we have no deſire to live with! give me ſuch as to great talents add the qualities that make us wiſh to *ſhut up doors* with them.

The 3d. Nothing buzzing in my ears but the fête given laſt night by the Spaniſh Ambaſſador. The beſt fête of the preſent period is that which ten millions of people are giving to themſelves,

The feaſt of reaſon and the flow of ſoul.

The animated feelings of boſoms beating with gratitude for the eſcape of one common calamity, and the thrilling hope of the continuance of common bleſſings. Meet at Mr. Songa's the Count de Berchtold, who has much good ſenſe and many important views:——Why does not the Emperor call him to his own country, and make him a Miniſter? The world will never be well governed till princes know their ſubjects.

The 4th. To Dover in the machine, with two merchants from Stockholm, a German and a Swede; we ſhall be companions to Paris. I am more likely to learn ſomething uſeful from the converſation of a Swede and a German, than from the chance medley Engliſhmen of a ſtage-coach.——72 miles.

The 5th. Paſſage to Calais; fourteen hours for reflection in a vehicle that does not allow one power to reflect.——21 miles.

The 6th. A Frenchman and his wife, and a French teacher from Ireland, full of foppery and affectation, which her own nation did not give her, were our company, with a young good-natured raw countryman of hers, at whom ſhe played off many airs and graces. The man and his wife contrived to produce a pack of cards, to baniſh, they ſaid, *l'enuye* of the journey; but they contrived alſo to fleece the young fellow of five louis. This is the firſt French diligence I have been in, and ſhall be the laſt; they are deteſtable. Sleep at Abbeville.——78 miles.

Theſe men and women, girls and boys, think themſelves (except the Swede) very chearful becauſe very noiſy; they have ſtunned me with ſinging; my ears have been

ſo

ſo tormented with French airs, that I would almoſt as ſoon have rode the journey blindfold on an aſs. This is what the French call good ſpirits; no truly chearful emotion in their boſoms; ſilent or ſinging; but for converſation they had none. I loſe all patience in ſuch company. Heaven ſend me a blind mare rather than another diligence! We were all this night, as well as all the day, on the road, and reached Paris at nine in the morning.——102 miles.

The 8th. To my friend Lazowſki, to know where were the lodgings I had written him to hire me, but my good Ducheſs d'Eſtiſſac would not allow him to execute my commiſſion. I found an apartment in her hotel prepared for me. Paris is at preſent in ſuch a ferment about the States General, now holding at Verſailles, that converſation is abſolutely abſorbed by them. Not a word of any thing elſe talked of. Every thing is conſidered, and juſtly ſo, as important in ſuch a criſis of the fate of four-and-twenty millions of people. It is now a ſerious contention whether the repreſentatives are to be called the *Commons* or the *Tiers Etat;* they call themſelves ſteadily the former, while the Court and the great Lords reject the term with a ſpecies of apprehenſion, as if it involved a meaning not eaſily to be fathomed. But this point is of little conſequence compared with another, that has kept the ſtates for ſome time in inactivity, the verification of their power ſeparately or in common. The nobility and the clergy demand the former, but the Commons ſteadily refuſe it; the reaſon why a circumſtance, apparently of no great conſequence, is thus tenaciouſly regarded, is, that it may decide their ſitting for the future in ſeparate houſes or in one. Thoſe who are warm for the intereſt of the people declare that it will be impoſſible to reform ſome of the groſſeſt abuſes in the ſtate, if the nobility, by ſitting in a ſeparate chamber, ſhall have a negative on the wiſhes of the people: and that to give ſuch a *veto* to the clergy would be ſtill more prepoſterous; if therefore, by the verification of their powers in one chamber, they ſhall once come together, the popular party hope that there will remain no power afterwards to ſeparate. The nobility and clergy foreſee the ſame reſult, and will not therefore agree to it. In this dilemma it is curious to remark the *feelings* of the moment. It is not my buſineſs to write memoirs of what paſſes, but I am intent to catch, as well as I can, the opinions of the day moſt prevalent. While I remain at Paris, I ſhall ſee people of all deſcriptions, from the coffee-houſe politicians to the leaders in the ſtates; and the chief object of ſuch rapid notes as I throw on paper, will be to catch the ideas of the moment; to compare them afterwards with the actual events that ſhall happen, will afford amuſement at leaſt. The moſt prominent feature that appears at preſent is, that an idea of common intereſt and common danger does not ſeem to unite thoſe, who, if not united, may find themſelves too weak to oppoſe the danger that muſt ariſe from the people being ſenſible of a ſtrength the reſult of *their* weakneſs. The King, Court, Nobility, Clergy, Army, and Parliament, are nearly in the ſame ſituation. All theſe conſider, with equal dread, the ideas of liberty, now afloat; except the firſt, who, for reaſons obvious to thoſe who know his character, troubles himſelf little, even with circumſtances that concern his power the moſt intimately. Among the reſt, the feeling of danger is common, and they would unite were there a head to render it eaſy, in order to do without the ſtates at all. That the Commons themſelves look for ſome ſuch hoſtile union as more than probable, appears from an idea which gains ground, that they will find it neceſſary, ſhould the other two orders continue to unite with them in one chamber, to declare themſelves boldly the repreſentatives of the kingdom at large, calling on the Nobility and Clergy to take their places—and to enter upon deliberations of buſineſs without them, ſhould they refuſe it. All converſation at preſent is on this topic, but opinions are more divided than I ſhould have expected. There

ſeem to be many who hate the clergy ſo cordially, that rather than permit them to form a diſtinct chamber, they would venture on a new ſyſtem, dangerous as it might prove.

The 9th. The buſineſs going forward at preſent in the pamphlet ſhops of Paris is incredible. I went to the Palais Royal to ſee what new things were publiſhed, and to procure a catalogue of all. Every hour produces ſomething new. Thirteen came out to-day, ſixteen yeſterday, and ninety-two laſt week. We think ſometimes that Debrett's or Stockdale's ſhops at London are crowded, but they are mere deſerts, compared to Deſein's, and ſome others here, in which one can ſcarcely ſqueeze from the door to the counter. The price of printing two years ago was from 27 livres to 30 livres per ſheet, but now it is from 60 livres to 80 livres. This ſpirit of reading political tracts, they ſay, ſpreads into the provinces, ſo that all the preſſes of France are equally employed. Nineteen-twentieths of theſe productions are in favour of liberty, and commonly violent againſt the clergy and nobility; I have to day beſpoken many of this deſcription, that have reputation; but enquiring for ſuch as had appeared on the other ſide of the queſtion, to my aſtoniſhment I find there are but two or three that have merit enough to be known. Is it not wonderful, that while the preſs teems with the moſt levelling and even ſeditious principles, which put in execution would overturn the monarchy, nothing in reply appears, and not the leaſt ſtep is taken by the court to reſtrain this extreme licentiouſneſs of publication? It is eaſy to conceive the ſpirit that muſt thus be raiſed among the people. But the coffee-houſes in the Palais Royal preſent yet more ſingular and aſtoniſhing ſpectacles; they are not only crowded within, but other expectant crowds are at the doors and windows, liſtening a gorge deployeé to certain orators, who from chairs or tables harangue each his little audience: the eagerneſs with which they are heard, and the thunder of applauſe they receive for every ſentiment of more than common hardineſs or violence againſt the preſent government, cannot eaſily be imagined. I am all amazement at the miniſtry permitting ſuch neſts and hot-beds of ſedition and revolt, which diſſeminate amongſt the people, every hour, principles that by and by muſt be oppoſed with vigour, and therefore it ſeems little ſhort of madneſs to allow the propagation at preſent.

The 10th. Every thing conſpires to render the preſent period in France critical; the want of bread is terrible: accounts arrive every moment from the provinces of riots and diſturbances, and calling in the military to preſerve the peace of the markets. The prices reported are the ſame as I found at Abbeville and Amiens, 5 ſous (2½d.) a pound for white bread, and 3½ ſous to four ſous for the common ſort eaten by the poor; theſe rates are beyond their faculties, and occaſion great miſery. At Meudon, the police, that is to ſay the intendant, ordered that no wheat ſhould be ſold in the market without the perſon taking at the ſame time an equal quantity of barley. What a ſtupid and ridiculous regulation, to lay obſtacles on the ſupply, in order to be better ſupplied; and to ſhew the people the fears and apprehenſions of government, creating thereby an alarm, and raiſing the price at the very moment they wiſh to ſink it! I have had ſome converſation on this topic with well-informed perſons, who have aſſured me, that the price is, as uſual, much higher than the proportion of the crop demanded, and there would have been no real ſcarcity if Mr. Necker would have let the corn-trade alone; but his edicts of reſtriction, which have been mere comments on his book on the legiſlation of corn, have operated more to raiſe the price than all other cauſes together. It appears plain to me, that the violent friends of the commons are not diſpleaſed at the high price of corn, which ſeconds their views greatly, and makes any appeal to the common feeling of the people more eaſy, and much more to their purpoſe than if the

price were low. Three days paſt, the chamber of the clergy contrived a cunning propoſition; it was to ſend a deputation to the commons, propoſing to name a commiſſion from the three orders to take into conſideration the miſery of the people, and to deliberate on the means of lowering the price of bread. This would have led to the deliberation by order, and not by heads, conſequently muſt be rejected, but unpopularly ſo from the ſituation of the people: the commons were equally dextrous; in their reply, they prayed and conjured the clergy to join them in the common hall of the ſtates to deliberate, which was no ſooner reported at Paris, than the clergy became doubly an object of hatred; and it became a queſtion with the politicians of the Caffé de Foy, whether it were not lawful for the commons to decree the application of the eſtates of the clergy towards eaſing the diſtreſs of the people.

The 11th. I have been in much company all day, and cannot but remark that there ſeem to be no ſettled ideas of the beſt means of forming a new conſtitution. Yeſterday the Abbé Syeyes made a motion in the houſe of commons, to declare boldly to the privileged orders, that if they will not join the commons, the latter will proceed in the national buſineſs without them; and the houſe decreed it with a ſmall amendment. This cauſes much converſation on what will be the conſequence of ſuch a proceeding; and, on the contrary, on what may flow from the nobility and clergy continuing ſteadily to refuſe to join the commons, and ſhould they ſo proceed, to proteſt againſt all they decree, and appeal to the king to diſſolve the ſtates, and recal them in ſuch a form as may be practicable for buſineſs. In theſe moſt intereſting diſcuſſions, I find a general ignorance of the principles of government; a ſtrange and unaccountable appeal, on one ſide, to ideal and viſionary rights of nature; and on the other, no ſettled plan that ſhall give ſecurity to the people for being in future in a much better ſituation than hitherto; a ſecurity abſolutely neceſſary. But the nobility, with the principles of great lords that I converſe with, are moſt diſguſtingly tenacious of all old rights, however hard they may bear on the people; they will not hear of giving way in the leaſt to the ſpirit of liberty beyond the point of paying equal land-taxes, which they hold to be all that can with reaſon be demanded. The popular party, on the other hand, ſeem to conſider all liberty as depending on the privileged claſſes being loſt, and out-voted in the order of the commons, at leaſt for making the new conſtitution; and when I urge the great probability, that ſhould they once unite, there will remain no power of ever ſeparating them; and that in ſuch caſe, they will have a very queſtionable conſtitution, perhaps a very bad one; I am always told, that the firſt object muſt be for the people to get the power of doing good; and that it is no argument againſt ſuch a conduct to urge that an ill uſe may be made of it. But among ſuch men, the common idea is, that any thing tending towards a ſeparate order, like our houſe of lords, is abſolutely inconſiſtent with liberty; all which ſeems perfectly wild and unfounded.

The 12th. To the royal ſociety of agriculture, which meets at the hotel de ville, and of which being an aſſocié, I voted, and received a jetton, which is a ſmall medal given to the members, every time they attend, in order to induce them to mind the buſineſs of their inſtitution; it is the ſame at all royal academies, &c. and amounts, in a year, to a conſiderable and ill-judged expence; for what good is to be expected from men who would go merely to receive their jetton? Whatever the motive may be, it ſeems well attended; near thirty were preſent; among them Parmentier, vice-preſident, Cadet de Vaux, Fourcroy, Tillet, Deſmarets, Brouſſonet, ſecretary, and Creté de Palieul, at whoſe farm I was two years ago, and who is the only practical farmer in the ſociety. The ſecretary reads the titles of the papers preſented, and gives ſome little account of them; but they are not read, unleſs particularly intereſting; then memoirs

are

are read by the members, or reports of references; and when they diſcuſs or debate, there is no order, but all ſpeak together, as in a warm private converſation. The Abbé Raynal has given them 1200 livres, (52l. 10s.) for a premium on ſome important ſubject; and my opinion was aſked what it ſhould be given for. Give it, I replied, in ſome way for the introduction of turnips. But that they conceive to be an object of impoſſible attainment; they have done ſo much, and the government ſo much more, and all in vain, that they conſider it as a hopeleſs object. I did not tell them that all hitherto done has been abſolute folly; and that the right way to begin, was to undo every thing done. I am never preſent at any ſocieties of agriculture, either in France or England, but I am much in doubt with myſelf whether, when beſt conducted, they do moſt good or miſchief; that is, whether the benefits a national agriculture may by great chance owe to them, are not more than counterbalanced by the harm they effect, by turning the public attention to frivolous objects, inſtead of important ones, or dreſſing important ones in ſuch a garb as to make them trifles? The only ſociety that could be really uſeful would be that which, in the culture of a large farm, ſhould exhibit a perfect example of good huſbandry, for the uſe of ſuch as would reſort to it; conſequently one that ſhould conſiſt ſolely of practical men; and then query whether many good cooks would not ſpoil a good diſh.

The ideas of the public on the great buſineſs going on at Verſailles change daily and even hourly. It now ſeems the opinion, that the commons, in their late violent vote, have gone too far; and that the union of the nobility, clergy, army, parliament, and King, will be by far too powerful for them; ſuch an union is ſaid to be in agitation; and that the Count d'Artois, the Queen, and the party uſually known by her name, are taking ſteps to effect it, againſt the moment when the proceedings of the commons ſhall make it neceſſary to act with unity and vigour. The abolition of the parliament is a topic of common converſation among the popular leaders, as a ſtep eſſentially neceſſary; becauſe, while they exiſt, they are tribunals to which the court can have reſort, ſhould they be inclined to take any ſtep againſt the exiſtence of the ſtates: thoſe bodies are alarmed, and ſee with deep regret, that their refuſal to regiſter the royal edicts, has created a power in the nation not only hoſtile, but dangerous to their exiſtence. It is now very well known, and underſtood on all hands, that ſhould the King get rid of the ſtates, and govern on any tolerable principles, his edicts would be enregiſtered by all the parliaments. In the dilemma and apprehenſion of the moment, the people look very much to the Duc d'Orleans as to a head; but with palpable and general ideas of diſtruſt and want of confidence; they regret his character, and lament that they cannot depend on him in any ſevere and difficult trial; they conceive him to be without ſteadineſs, and that his greateſt apprehenſion is to be exiled from the pleaſures of Paris, and tell of many littleneſſes he practiſed before to be recalled from baniſhment. They are, however, ſo totally without a head, that they are contented to look to him as one; and are highly pleaſed with what is every moment reported, that he is determined to go at the head of a party of the nobility, and verify their powers in common with the commons. All agree, that had he firmneſs, in addition to his vaſt revenue of ſeven millions a-year (306,250l.), and four more (175,000l.) in reverſion, after the death of his father-in-law, the Duc de Penthievre, he might, at the head of the popular cauſe, do any thing.

The 13th. In the morning to the king's library, which I had not ſeen when before at Paris; it is a vaſt apartment, and as all the world knows, nobly filled. Every thing is provided to accommodate thoſe who wiſh to read or tranſcribe—of whom there were ſixty or ſeventy preſent. Along the middle of the rooms are glaſs caſes, containing mo-

dels of the inſtruments of many trades preſerved for the benefit of poſterity, being made on the moſt exact ſcale of proportion; among others the potter's, founder's, brick-maker's, chymiſt's, &c. &c. and lately added a very large one of the Engliſh garden, moſt miſerably imagined; but with all this not a plough, or an iota of agriculture; yet a farm might be much eaſier repreſented than the garden they have attempted, and with infinitely more uſe. I have no doubt but there may ariſe many caſes, in which the preſervation of inſtruments, unaltered, may be of conſiderable utility; I think I ſee clearly, that ſuch a uſe would reſult in agriculture, and, if ſo, why not in other arts? Theſe caſes of models, however, have ſo much the air of children's play-houſes, that I would not anſwer for my little girl, if I had her here, not crying for them. At the Ducheſs d'Anville's, where meet the Archbiſhop of Aix, Biſhop of Blois, Prince de Laon, and Duc and Ducheſs de la Rochefoucauld, the three laſt of my old Bagnere de Luchon acquaintance, Lord and Lady Camelford, Lord Eyre, &c. &c.

All this day I hear nothing but anxiety of expectation for what the criſis in the ſtate will produce. The embarraſſment of the moment is extreme. Every one agrees that there is no miniſtry: the Queen is cloſely connecting herſelf with the party of the princes, with the Count d'Artois at their head; who are all ſo adverſe to Monſ. Necker, that every thing is in confuſion: but the King, who is perſonally the honeſteſt man in the world, has but one wiſh, which is to do right; yet, being without thoſe deciſive parts that enable a man to foreſee difficulties and to avoid them, finds himſelf in a moment of ſuch extreme perplexity, that he knows not what council to take refuge in: it is ſaid that Monſ. Necker is alarmed for his power, and anecdote reports things to his diſadvantage, which probably are not true:—of his trimming—and attempting to connect himſelf with the Abbé de Vermont, reader to the Queen, who has great influence in all affairs in which he chuſes to interfere; this is hardly credible, as that party are known to be exceedingly adverſe to Monſ. Necker; and it is even ſaid that, as the Count d'Artois, Madame de Polignac, and a few others were, but two days ago, walking in the private garden of Verſailles, they met Madame Necker, and deſcended even to hiſſing her: if half this be true, it is plain enough that this miniſter muſt ſpeedily retire. All who adhere to the antient conſtitution, or rather government, conſider him as their mortal enemy; they aſſert, and truly, that he came in under circumſtances that would have enabled him to do every thing he pleaſed—he had King and kingdom at command—but that the errors he was guilty of, for want of ſome ſettled plan, have been the cauſe of all the dilemmas experienced ſince. They accuſe him heavily of aſſembling the notables, as a falſe ſtep that did nothing but miſchief: and aſſert that his letting the King go to the ſtates-general, before their powers were verified, and the neceſſary ſteps taken to keep the orders ſeparate, after giving double the repreſentation to the tiers to that of the other two orders, was madneſs; and that he ought to have appointed commiſſaries to have received the verification before admittance. They accuſe him further of having done all this through an exceſſive and inſufferable vanity, which gave him the idea of guiding the deliberation of the ſtates by his knowledge and reputation. It is expreſsly aſſerted, however, by M. Necker's moſt intimate friends, that he has acted with good faith, and that he has been in principle a friend to the regal power, as well as to an amelioration of the condition of the people. The worſt thing I know of him is his ſpeech to the ſtates on their aſſembling,—a great opportunity, but loſt,—no leading or maſterly views,—no deciſion on circumſtances in which the people ought to be relieved, and new principles of government adopted;—it is the ſpeech you would expect from a banker's

clerk of ſome ability. Concerning it there is an anecdote worth inſerting; he knew his voice would not enable him to go through the whole of it, in ſo large a room, and to ſo numerous an aſſembly; and therefore he had ſpoken to Monſ. de Brouſſonet, of the Academy of Sciences, and ſecretary to the Royal Society of Agriculture, to be in readineſs to read it for him. He had been preſent at an annual general meeting of that ſociety, when Monſ. de Brouſſonet had read a diſcourſe with a powerful piercing voice, that was heard diſtinctly to the greateſt diſtance. This gentleman attended him ſeveral times to take his inſtructions, and to be ſure of underſtanding the interlineations that were made, even after the ſpeech was finiſhed. Monſ. de Brouſſonet was with him the evening before the aſſembly of the ſtates, at nine o'clock: and next day, when he came to read it in public, he found ſtill more corrections and alterations, which Monſ. Necker had made after quitting him; they were chiefly in ſtile, and ſhewed how very ſolicitous he was in regard to the form and decoration of his matter: the ideas in my opinion wanted this attention more than the ſtile. Monſ. de Brouſſonet himſelf told me this little anecdote. This morning in the ſtates three curées of Poitou have joined themſelves to the commons, for the verification of their powers, and were received with a kind of madneſs of applauſe; and this evening at Paris nothing elſe is talked of. The nobles have been all day in debate, without coming to any concluſion, and have adjourned to Monday.

The 14th. To the King's garden, where Monſ. Thouin had the goodneſs to ſhew me ſome ſmall experiments he has made on plants that promiſe greatly for the farmer, particularly the lathyrus biennis *, and the melilotus ſyberica *, which now make an immenſe figure for forage; both are biennial; but will laſt three or four years if not ſeeded; the Achillæa ſyberica and an aſtragalus appear good; he has promiſed me ſeeds. The Chineſe hemp has perfected its ſeeds, which it had not done before in France. The more I ſee of Monſ. Thouin the better I like him; he is one of the moſt amiable men I know.

To the repoſitory of the royal machines, which Monſ. Vandermond ſhewed and explained to me, with great readineſs and politeneſs. What ſtruck me moſt was Monſ. Vaucuſſon's machine for making a chain, which I was told Mr. Watt of Birmingham admired very much, at which my attendants ſeemed not diſpleaſed. Another for making the cogs indented in iron wheels. There is a chaff cutter, from an Engliſh original; and a model of the nonſenſical plough to go without horſes; theſe are the only ones in agriculture. Many of very ingenious contrivances for winding ſilk, &c. In the evening to the theatre François, the Siege of Calais, by Monſ. de Belloy, not a good, but a popular performance.

It is now decided by the popular leaders, that they will move to-morrow to declare all taxes illegal not raiſed by authority of the ſtates general, and to grant them for a term only, either for two years, or for the duration of the preſent ſeſſion of the ſtates. This plan is highly approved at Paris by all friends of liberty; and it is certainly a rational mode of proceeding, founded on juſt principles, and will involve the court in a great dilemma.

The 15th. This has been a rich day, and ſuch an one as ten years ago none could believe would ever arrive in France; a very important debate being expected on what, in our houſe of commons, would be termed the ſtate of the nation, my friend Monſ. Lazowſki and myſelf were at Verſailles by eight in the morning. We went immediately to the hall of the ſtates to ſecure good ſeats in the gallery; we found ſome de-

* I have cultivated theſe plants in ſmall quantities, and believe them to be a very important object.

puties

puties already there, and a pretty numerous audience collected. The room is too large; none but Stentorian lungs, or the fineſt cleareſt voices can be heard; however the very ſize of the apartment, which admits two thouſand people, gave a dignity to the ſcene. It was indeed an intereſting one. The ſpectacle of the repreſentatives of twenty-five millions of people, juſt emerging from the evils of two hundred years of arbitrary power, and riſing to the bleſſings of a freer conſtitution, aſſembled with open doors under the eye of the public, was framed to call into animated feelings every latent ſpark, every emotion of a liberal boſom; to baniſh whatever ideas might intrude of their being a people too often hoſtile to my own country,—and to dwell with pleaſure on the glorious idea of happineſs to a great nation—of felicity to millions yet unborn. Monſ. l'Abbé Syeyes opened the debate. He is one of the moſt zealous ſticklers for the popular cauſe; carries his ideas not to a regulation of the preſent government, which he thinks too bad to be regulated at all, but wiſhes to ſee it abſolutely overturned, being in fact a violent republican: this is the character he commonly bears, and in his pamphlets he ſeems pretty much to juſtify ſuch an idea. He ſpeaks ungracefully, and uneloquently, but logically, or rather reads ſo, for he read his ſpeech, which was prepared. His motion was to declare the aſſembly the repreſentatives known and verified of the French nation, admitting the right of all abſent deputies (the nobility and clergy) to be received among them on the verification of their powers. Monſ. de Mirabeau ſpoke without notes, for near an hour, with a warmth, animation, and eloquence, that entitles him to the reputation of an undoubted orator. He oppoſed the words known and verified, in the propoſition of the Abbé Syeyes, with great force of reaſoning; and propoſed, in lieu, that they ſhould declare themſelves ſimply *Repreſentatives du peuple François:* that no veto ſhould exiſt againſt their reſolves in any other aſſembly: that all taxes are illegal, but ſhould be granted during the preſent ſeſſion of the ſtates, and no longer: that the debt of the king ſhould become the debt of the nation, and be ſecured on funds accordingly. Monſ. de Mirabeau was well heard, and his propoſition much applauded. Monſ. de Mounier, a deputy from Dauphiné, of great reputation, and who has publiſhed ſome pamphlets, very well approved by the public, moved a different reſolution, to declare themſelves the legitimate repreſentatives of the majority of the nation: that they ſhould vote by head and not by order: and that they ſhould never acknowledge any right in the repreſentatives of the clergy or nobility to deliberate ſeparately. Monſ. Rabaud St. Etienne, a proteſtant from Languedoc, alſo an author, who has written on the preſent affairs, and a man of conſiderable talents, made likewiſe his propoſition, which was to declare themſelves the repreſentatives of the people of France; to declare all taxes null; to regrant them during the ſitting of the ſtates; to verify and conſolidate the debt; and to vote a loan. All which were well approved except the loan, which was not at all to the feeling of the aſſembly. This gentleman ſpeaks clearly and with preciſion, and only paſſages of his ſpeech from notes. Monſ. Bernave, a very young man, from Grenoble, ſpoke without notes with great warmth and animation. Some of his periods were ſo well rounded, and ſo eloquently delivered, that he met with much applauſe, ſeveral members crying—bravo!

In regard to their general method of proceeding, there are two circumſtances in which they are very deficient: the ſpectators in the galleries are allowed to interfere in the debates by clapping their hands, and by other noiſy expreſſions of approbation: this is groſsly indecent; it is alſo dangerous; for, if they be permitted to expreſs approbation, they are, by parity of reaſon, allowed expreſſions of diſſent; and they may hiſs as well as clap; which, it is ſaid, they have ſometimes done:—this would be, to

over

over-rule the debate, and influence the deliberations. Another circumſtance, is the want of order among themſelves; more than once to-day there were an hundred members on their legs at a time, and Monſ. Baillie abſolutely without power to keep order. This ariſes very much from complex motions being admitted; to move a declaration relative to their title, to their powers, to taxes, to a loan, &c. &c. all in one propoſition, appears to Engliſh ears prepoſterous, and certainly is ſo. Specific motions, founded on ſingle and ſimple propoſitions, can alone produce order in debate; for it is endleſs to have five hundred members declaring their reaſons of aſſent to one part of a complex propoſition, and their diſſent to another part. A debating aſſembly ſhould not proceed to any buſineſs whatever till they have ſettled the rules and orders of their proceedings, which can only be done by taking thoſe of other experienced aſſemblies, confirming them as they find uſeful, and altering ſuch as require to be adapted to different circumſtances. The rules and orders of debate in the Houſe of Commons of England, as I afterwards took the liberty of mentioning to Monſ. Rabaud St. Etienne, might have been taken at once from Hatſel's book, and would have ſaved them at leaſt a fourth of their time. They adjourned for dinner. Dined ourſelves with the Duc de Liancourt, at his apartments in the palace, meeting twenty deputies. I ſat by M. Rabaud St. Etienne, and had much converſation with him; they all ſpoke with equal confidence on the fall of deſpotiſm. They foreſee, that attempts very adverſe to the ſpirit of liberty will be made, but the ſpirit of the people is too much excited at preſent to be cruſhed any more. Finding that the queſtion of to-day's debate cannot be decided to-day, and that in all probability it will be unfiniſhed even to-morrow, as the number that will ſpeak on it is very great, return in the evening to Paris.

The 16th. To Dugny, ten miles from Paris, again with Monſ. de Brouſſonet, to wait on Monſ. Creté de Palieul, the only practical farmer in the Society of Agriculture. M. Brouſſonet, than whom no man can be more eager for the honour and improvement of agriculture, was deſirous that I ſhould witneſs the practice and improvements of a gentleman who ſtands ſo high in the liſt of good French farmers. Called firſt on the brother of Monſ. Creté who at preſent has the *poſte*, and conſequently one hundred and forty horſes; walked over his farm, and the crops he ſhewed me of wheat and oats were on the whole very fine, and ſome of them ſuperior; but I muſt confeſs I ſhould have been better pleaſed with them if he had not had his ſtables ſo well filled with a view different from that of the farm. And to look for a courſe of crops in France is vain; he ſows white corn twice, thrice, and even four times in ſucceſſion. At dinner, &c. had much converſation with the two brothers, and ſome other neighbouring cultivators preſent, on this point, in which I recommended either turnips or cabbages, according to the ſoil, for breaking their rotations of white corn. But every one of them, except Monſ. de Brouſſonet, was againſt me, they demanded, Can we ſow wheat after turnips and cabbages? On a ſmall portion you may and with great ſucceſs; but the time of conſuming the greater part of the crop renders it impoſſible. That is ſufficient, if we cannot ſow wheat after them, they cannot be good in France. This idea is every where nearly the ſame in that kingdom. I then ſaid, that they might have half their land under wheat, and yet be good farmers; thus—1. Beans;—2. Wheat;—3. Tares;—4. Wheat;—5. Clover; 6 Wheat;—This they approved better of, but thought their own courſes more profitable. But the moſt intereſting circumſtance of their farms is the chicory *(chicorium intybus)*. I had the ſatisfaction to find, that Monſ. Creté de Palieul had as great an opinion of it as ever; that his brother had adopted it; that it was very flouriſhing on both their farms, and on thoſe of their neighbours alſo: I never ſee this plant but I congratulate myſelf on having travelled for ſomething more than to write

write in my cloſet; and that the introduction of it in England would alone, if no other reſult had flowed from one man's exiſtence, have been enough to ſhew that he did not live in vain. Of this excellent plant, and Monſ. Creté's experiments on it, more elſewhere.

The 17th. Converſation turns on the motion of l'Abbé Syeyes being accepted, though that of the Count de Mirabeau better reliſhed. But his character is a dead weight upon him; there is a ſuſpicion that he has received 100,000 livres from the Queen; a blind, improbable report; for his conduct would in every probability be very different had any ſuch tranſaction taken place: but when a man's life has not paſſed free from groſs errors, to uſe the mildeſt language, ſuſpicions are ever ready to fix on him, even when he is as free from what ought at the moment to give the imputation, as the moſt immaculate of their patriots. This report brings out others from their lurking holes; that he publiſhed, at her inſtigation, the anecdotes of the court of Berlin; and that the King of Pruſſia, knowing the cauſes of that publication, circulated the memoirs of Madame de la Motte all over Germany. Such are the eternal tales, ſuſpicions, and improbabilities for which Paris has always been ſo famous. One clearly, however, gathers from the complexion of converſation, even on the moſt ridiculous topics, provided of a public nature, how far, and for what reaſon, confidence is lodged in certain men. In every company, of every rank, you hear of the Count de Mirabeau's talents; that he is one of the firſt pens of France, and the firſt orator; and yet that he could not carry from confidence ſix votes on any queſtion in the ſtates. His writings, however, ſpread in Paris and the provinces: he publiſhed a journal of the ſtates, written for a few days with ſuch force, and ſuch ſeverity, that it was ſilenced by an expreſs edict of government. This is attributed to Monſ. Necker, who was treated in it with ſo little ceremony, that his vanity was wounded to the quick. The number of ſubſcribers to the journal was ſuch, that I have heard the profit to Monſ. Mirabeau calculated at 60,000 livres (3500l.) a year. Since its ſuppreſſion, he publiſhes once or twice a week a ſmall pamphlet, to anſwer the ſame purpoſe, of giving an account of the debates, or rather obſervations on them, entitled, 1, 2, 3, &c. *Lettre de Comte de Mirabeau à ſes Commetans*, which, though violent, ſarcaſtic, and ſevere, the court has not thought proper to ſtop, reſpecting, I ſuppoſe, its title. It is a weak and miſerable conduct, to ſingle out any particular publication for prohibition, while the preſs groans with innumerable productions, whoſe tendency is abſolutely to overturn the preſent government; to permit ſuch pamphlets to be circulated all over the kingdom, even by the poſts and diligences in the hands of government, is a blindneſs and folly, from which there are no effects that may not be expected. In the evening to the comic opera; Italian muſic, Italian words, and Italian performers; and the applauſe ſo inceſſant and rapturous, that the ears of the French muſt be changing apace. What would Jean Jacques have ſaid, could he have been a witneſs to ſuch a ſpectacle at Paris!

The 18th. Yeſterday the commons decreed themſelves, in conſequence of the Abbé Syeyes's intended motion, the title of *Aſſemblé Nationale*; and alſo, conſidering themſelves then in activity, the illegality of all taxes; but granted them during the ſeſſion, declaring that they would, without delay, deliberate on the conſolidating of the debt; and on the relief of the miſery of the people. Theſe ſteps give great ſpirits to the violent partizans of a new conſtitution, but, amongſt more ſober minds, I ſee evidently an apprehenſion, that it will prove a precipitate meaſure. It is a violent ſtep, which may be taken hold of by the court, and converted very much to the people's diſadvantage. The reaſoning of Monſ. de Mirabeau againſt it was forcible and juſt—"Si je voulois employer contre les autres motions les armes dont on ſe ſert pour attaquer la mienne,

ne pourrois-je pas dire a mon tour: de quelque maniere que vous-vous qualifiez, que vous ſoyez les repréſentans connus & verifiés de la nation, les repréſentans de 25 millions d'hommes, les repréſentans de la majorité du peuple, duſſiez-vous même vous appeller l'Aſſembleé Nationale, les états généraux, empécherez-vous les claſſes privilegieés de continuer des aſſembleés que ſa majeſté a reconnues? Les empécherez vous de prendre des de liberationes? Les empécherez-vous de pretendre au veto? Empécherez-vous le Roi de les recevoir? De les reconnoitre, de leur continuer les mêmes titres qu'il leur a donnés juſqu'a preſent? Enfin, empécherez-vous la nation d'appeller le clergé, le clergé, la nobleſſe, la nobleſſe?"

To the Royal Society of Agriculture, where I gave my vote with the reſt, who were unanimous for electing General Waſhington an honorary member; this was a propoſal of Monſ. de Brouſſonet, in conſequence of my having aſſured him, that the General was an excellent farmer, and had correſponded with me on the ſubject. Abbé Commerel was preſent; he gave a pamphlet on a new project, the *choux a fauché*, and a paper of the ſeed.

The 19th. Accompanied Monſ. de Brouſſonet to dine with Monſ. de Parmentier, at the *hotel des invalids*. A preſident of the parliament, a Monſ. Mailly, brother-in-law to the chancellor, was there; Abbé Commerel, &c. &c. I remarked two years ago, that Monſ. Parmentier is one of the beſt of men, and beyond all queſtion underſtands every circumſtance of the *boulangerie* better than any other writer, as his productions clearly manifeſt. After dinner to the plains of Sablon, to ſee the Society's potatoes and preparations for turnips, of which I ſhall only ſay that I wiſh my brethren to ſtick to their ſcientific farming, and leave the practical to thoſe who underſtand it. What a ſad thing for philoſophical huſbandmen that God Almighty created ſuch a thing as couch (*triticum repens.*)

The 20th. News!—News!—Every one ſtares at what every one might have expected. A meſſage from the King to the Preſidents of the three orders, that he ſhould meet them on Monday; and, under pretence of preparing the hall for the *ſeance royale*, the French guards were placed with bayonets to prevent any of the deputies entering the room. The circumſtances of doing this ill-judged act of violence have been as ill-adviſed as the act itſelf. Monſ. Bailly received no other notice of it than by a letter from the Marquis de Brézé, and the Deputies met at the door of the hall, without knowing that it was ſhut. Thus the ſeeds of diſguſt were ſown wantonly in the manner of doing a thing, which in itſelf was equally impalatable and unconſtitutional. The reſolution taken on the ſpot was a noble and firm one; it was to aſſemble inſtantly at the *Jeu de paume*, and there the whole aſſembly took a ſolemn oath never to be diſſolved but by their own conſent, and to conſider themſelves, and act as the National Aſſembly, let them be wherever violence or fortune might drive them; and their expectations were ſo little favourable, that expreſſes were ſent off to Nantes, intimating that the National Aſſembly might poſſibly find it neceſſary to take refuge in ſome diſtant city. This meſſage, and placing guards at the hall of the ſtates, are the reſult of long and repeated councils, held in the King's preſence at Marly, where he has been ſhut up for ſome days, ſeeing nobody; and no perſon admitted, even to the officers of the court, without jealouſy and circumſpection. The King's brothers have no ſeat in the council, but the Count d'Artois inceſſantly attends the reſolutions, conveys them to the Queen, and has long conferences with her. When this news arrived at Paris, the Palais Royal was in a flame, the coffee-houſes, pamphlet-ſhops, corridores, and gardens were crouded,—alarm and apprehenſion ſat in every eye,—the reports that were circulated eagerly, tending to ſhew the violent intentions of the court, as if it were bent on the utter extir-

pation of the French nation, except the party of the Queen, are perfectly incredible for their groſs abſurdity: yet nothing was ſo glaringly ridiculous, but the mob ſwallowed it with undiſcriminating faith. It was, however, curious to remark, among perſons of another deſcription (for I was in ſeveral parties after the news arrived), that the balance of opinions was clearly that the National Aſſembly, as it called itſelf, had gone too far —had been too precipitate—and too violent—had taken ſteps that the maſs of the people would not ſupport. From which we may conclude, that if the court, having ſeen the tendency of their late proceedings, ſhall purſue a firm and politic plan, the popular cauſe will have little to boaſt.

The 21ſt. It is impoſſible to have any other employment at ſo critical a moment, than going from houſe to houſe demanding news; and remarking the opinions and ideas moſt current. The preſent moment is, of all others, perhaps that which is moſt pregnant with the future deſtiny of France. The ſtep the Commons have taken of declaring themſelves the National Aſſembly, independent of the other orders, and of the King himſelf, precluding a diſſolution, is in fact an aſſumption of all the authority in the kingdom. They have at one ſtroke converted themſelves into the long parliament of Charles I. It needs not the aſſiſtance of much penetration to ſee that if ſuch a pretenſion and declaration be not done away, King, Lords, and Clergy are deprived of their ſhares in the legiſlature of France. So bold, and apparently deſperate a ſtep, equally deſtructive to the royal authority, the parliaments, and the army, and to every intereſt in the realm, can never be allowed. If it be not oppoſed, all other powers will lie in ruins around that of the Commons. With what anxious expectation muſt one therefore wait to ſee if the crown will exert itſelf firmly on the occaſion, with ſuch an attention to an improved ſyſtem of liberty, as is abſolutely neceſſary to the moment! All things conſidered, that is, the characters of thoſe who are in poſſeſſion of power, no well digeſted ſyſtem and ſteady execution are to be looked for. In the evening to the play; Madame Rocquere performed the Queen in Hamlet; it may eaſily be ſuppoſed how that play of Shakeſpeare is cut in pieces. It has however effect by her admirable acting.

The 22d. To Verſailles at ſix in the morning, to be ready for the *ſeance royale*. Breakfaſting with the Duc de Liancourt, we found that the King had put off going to the ſtates till to-morrow morning. A committee of council was held laſt night, which ſat till midnight, at which were preſent Monſieur and the Count d'Artois for the firſt time: an event conſidered as extraordinary, and attributed to the influence of the Queen. The Count d'Artois, the determined enemy of Monſ. Necker's plans, oppoſed his ſyſtem, and prevailed to have the *ſeance* put off to give time for a council in the King's preſence to-day. From the chateau we went to find out the deputies; reports were various where they were aſſembling. To the *Récolets*, where they had been, but finding it incommodious, they went to the church of St. Louis, whither we followed them, and were in time to ſee M. Bailly take the chair, and read the King's letter, putting off the *ſeance* till to-morrow. The ſpectacle of this meeting was ſingular,—the crowd that attended in and around was great—and the anxiety and ſuſpenſe in every eye, with the variety of expreſſion that flowed from different views and different characters, gave to the countenances of all the world an impreſſion I had never witneſſed before. The only buſineſs of importance tranſacted, but which laſted till three o'clock, was receiving the oaths and ſignatures of ſome deputies, who had not taken them at the *Jeu de paume*; and the union of three Biſhops and one hundred and fifty of the Deputies of the Clergy, who came to verify their powers, and were received by ſuch applauſe, with ſuch clapping and ſhouting from all preſent, that the church reſounded.

Apparently the inhabitants of Verſailles, which having a population of ſixty thouſand people can afford a pretty numerous mob, are to the laſt perſon in the intereſt of the Commons; remarkable, as this town is abſolutely fed by the palace; and if the cauſe of the Court be not popular here, it is eaſy to ſuppoſe what it muſt be in all the reſt of the kingdom. Dine with the Duc de Liancourt, in the palace, a large party of Nobility and Deputies of the Commons, the Duc d'Orleans amongſt them; the Biſhop of Rodez, Abbé Syeyes, and Monſ. Rabaud St. Etienne. This was one of the moſt ſtriking inſtances of the impreſſion made on men of different ranks by great events. In the ſtreets, and in the church of St. Louis, ſuch anxiety was in every face, that the importance of the moment was written in the phyſiognomy; and all the common forms and ſalutations of habitual civility loſt in attention: but amongſt a claſs ſo much higher as thoſe I dined with, I was ſtruck with the difference. There were not, in thirty perſons, five in whoſe countenances you could gueſs that any extraordinary event was going forward: more of the converſation was indifferent than I ſhould have expected. Had it all been ſo, there would have been no room for wonder; but obſervations were made of the greateſt freedom, and ſo received as to mark that there was not the leaſt impropriety in making them. In ſuch a caſe, would not one have expected more energy of feeling and expreſſion, and more attention in converſation to the criſis that muſt in its nature fill every boſom? Yet they ate, and drank, and ſat, and walked, loitered, and ſmirked and ſmiled, and chatted with that eaſy indifference, that made me ſtare at their inſipidity. Perhaps there is a certain nonchalence that is natural to people of faſhion from long habit, and which marks them from the vulgar, who have a thouſand aſperities in the expreſſion of their feelings, that cannot be found on the poliſhed ſurface of thoſe whoſe manners are ſmoothed by ſociety, not worn by attrition. Such an obſervation would therefore in all common caſes be unjuſt; but I confeſs the preſent moment, which is beyond all queſtion the moſt critical that France has ſeen from the foundation of the monarchy, ſince the council was aſſembled that muſt finally determine the King's conduct, was ſuch as might have accounted for a behaviour totally different. The preſence of the Duc d'Orleans might do a little, but not much; his manner might do more; for it was not without ſome diſguſt, that I obſerved him ſeveral times playing off that ſmall ſort of wit, and flippant readineſs to titter, which, I ſuppoſe, is a part of his character, or it would not have appeared to-day. From his manner, he ſeemed not at all diſpleaſed. The Abbé Syeyes has a remarkable phyſiogmony, a quick rolling eye; penetrating the ideas of other people, but ſo cautiouſly reſerved as to guard his own. There is as much character in his air and manner as there is vacuity of it in the countenance of Monſ. Rabaud St. Etienne, whoſe phyſiognomy, however, is far from doing him juſtice, for he has undoubted talents. It ſeems agreed, that if in the council the Count d'Artois carries his point, Monſ. Necker, the Count de Montmorin, and Monſ. de St. Prieſt will reſign; in which caſe Monſ. Necker's return to power, and in triumph, will inevitably happen. Such a turn, however, muſt depend on events.——Evening.—The plan of the Count d'Artois accepted; the King will declare it in his ſpeech to-morrow. Monſ. Necker demanded to reſign, but was refuſed by the King. All is now anxiety to know what the plan is.

The 23d. The important day is over: in the morning Verſailles ſeemed filled with troops: the ſtreets about ten o'clock, were lined with the French guards, and ſome Swiſs regiments, &c.: the hall of the ſtates was ſurrounded, and centinels fixed in all the paſſages, and at the doors; and none but deputies admitted. This military preparation was ill judged, for it ſeemed admitting the impropriety and unpopularity of the intended meaſure, and the expectation, perhaps fear, of popular commotions. They

pronounced, before the King left the chateau, that his plan was adverſe to the people, from the military parade with which it was uſhered in. The contrary, however, proved to be the fact; the propoſitions are known to all the world: the plan was a good one; much was granted to the people in great and eſſential points; and as it was granted before they had provided for thoſe public neceſſities of finance, which occaſioned the ſtates being called together; and conſequently left them at full power in future to procure for the people all that opportunity might preſent, they apparently ought to accept them, provided ſome ſecurity be given for the future meetings of the ſtates, without which all the reſt would be inſecure; but as a little negotiation may eaſily ſecure this, I apprehend the deputies will accept them conditionally: the uſe of ſoldiers, and ſome imprudencies in the manner of forcing the King's ſyſtem, relative to the interior conſtitution, and aſſembling of the deputies, as well as the ill-blood which had had time to brood for three days paſt in their minds, prevented the commons from receiving the King with any expreſſions of applauſe; the clergy, and ſome of the nobility, cried "vive le Roi!" but treble the number of mouths being ſilent, took off all effect. It ſeems they had previouſly determined to ſubmit not to violence: when the King was gone, and the clergy and nobility retired, the Marquis de Brézé waiting a moment to ſee if they meant to obey the King's expreſs orders, to retire alſo to another chamber prepared for them, and perceiving that no one moved, addreſſed them—"Meſſieurs, vous connoiſſez les intentions du Roi." A dead ſilence enſued; and then it was that ſuperior talents bore the ſway, that overpowers in critical moments all other conſiderations. The eyes of the whole aſſembly were turned on the Count de Mirabeau, who inſtantly replied to the Marquis de Brézé—"Oui, Monſieur, nous avons entendre les intentions qu'on a ſuggéreés au Roi, & vous qui ne ſauriez être ſon organe auprés des etats généraux, vous qui n'àvez ici ni place, ni voix, ni droit de parler, vous n'êtes pas fait pour nous rapeller ſon diſcours. Cependant pour eviter toute équivoque, & tout delai, je vous declare que ſi l'on vous a chargé de nous faire ſortir d'ici, vous devez demander des ordres pour employer la force, car nous ne quitterons nos places que par la puiſſance de la baionette."—On which there was a general cry of—"Tel eſt le vœu de l'Aſſemblée." They then immediately paſſed a confirmation of their preceding arrets; and, on the motion of the Count de Mirabeau, a declaration that their perſons, individually and collectively, were ſacred; and that all who made any attempts againſt them ſhould be deemed infamous traitors to their country.

The 24th. The ferment at Paris is beyond conception; ten thouſand people have been all this day in the Palais Royal; a full detail of yeſterday's proceedings was brought this morning, and read by many apparent leaders of little parties, with comments to the people. To my ſurpriſe, the King's propoſitions are received with univerſal diſguſt. He ſaid nothing explicit on the periodical meeting of the ſtates; he declared all the old feudal rights to be retained as property. Theſe, and the change in the balance of repreſentation in the provincial aſſemblies, are the articles that give the greateſt offence. But, inſtead of looking to, or hoping for further conceſſions on theſe points, in order to make them more conſonant to the general wiſhes, the people ſeem, with a ſort of phrenzy, to reject all idea of compromiſe, and to inſiſt on the neceſſity of the orders uniting, that full power may conſequently reſide in the commons, to effect what they call the regeneration of the kingdom; a favourite term, to which they affix no preciſe idea, but add the indefinite explanation of the general reform of all abuſes. They are alſo full of ſuſpicions at M. Necker's offering to reſign, to which circumſtance they ſeem to look more than to much more eſſential points. It is plain to me, from many converſations and harangues I have been witneſs to, that the conſtant meetings at

the Palais Royal, which are carried to a degree of licentiouſneſs and fury of liberty, that is ſcarcely credible, united with the innumerable inflammatory publications that have been hourly appearing ſince the aſſembly of the ſtates, have ſo heated the people's expectations, and given them the idea of ſuch total changes, that nothing the King or court could do would now ſatisfy them; conſequently it would be idleneſs itſelf to make conceſſions that are not ſteadily adhered to, not only to be obſerved by the King, but to be enforced on the people, and good order at the ſame time reſtored. But the ſtumbling-block to this and every plan that can be deviſed, as the people know and declare in every corner, is the ſituation of the finances, which cannot poſſibly be reſtored but by liberal grants of the ſtates on the one hand, or by a bankruptcy on the other. It is well known, that this point has been warmly debated in the council: Monſ. Necker has proved to them, that a bankruptcy is inevitable, if they break with the ſtates before the finances are reſtored; and the dread and terror of taking ſuch a ſtep, which no miniſter would at preſent dare to venture on, has been the great difficulty that oppoſed itſelf to the projects of the Queen and the Count d'Artois. The meaſure they have taken is a middle one, from which they hope to gain a party among the people, and render the deputies unpopular enough to get rid of them: an expectation, however, in which they will infallibly be miſtaken. If, on the ſide of the people it be urged, that the vices of the old government make a new ſyſtem neceſſary, and that it can only be by the firmeſt meaſures that the people can be put in poſſeſſion of the bleſſings of a free government; it is to be replied, on the other hand, that the perſonal character of the King is a juſt foundation for relying that no meaſures of actual violence can be ſeriouſly feared: that the ſtate of the finances, under any poſſible regimen, whether of faith or bankruptcy, muſt ſecure their exiſtence, at leaſt for time ſufficient to ſecure by negotiation, what may be hazarded by violence; that by driving things to extremities, they riſque an union between all the other orders of the ſtate, with the parliaments, army, and a great body even of the people, who muſt diſapprove of all extremities; and when to this is added the poſſibility of involving the kingdom in a civil war, now ſo familiarly talked of, that it is upon the lips of all the world, we muſt confeſs, that the commons, if they ſteadily refuſe what is now held out to them, put immenſe and certain benefits to the chance of fortune, to that hazard which may make poſterity curſe, inſtead of bleſs, their memories as real patriots, who had nothing in view but the happineſs of their country. Such an inceſſant buz of politics has been in my ears for ſome days paſt, that I went to night to the Italian opera, for relaxation. Nothing could be better calculated for that effect, than the piece performed, "La Villanella Rapita," by Bianchi, a delicious compoſition. Can it be believed, that this people, who ſo lately valued nothing at an opera but the dances, and could hear nothing but a ſquall—now attend with feeling to Italian melodies, applaud with taſte and rapture, and this without the meretricious aid of a ſingle dance! The muſic of this piece is charming, elegantly playful, airy, and pleaſing, with a duet, between Signora Mandini, and Viganoni, of the firſt luſtre. The former is a moſt faſcinating ſinger—her voice nothing, but her grace, expreſſion, ſoul, all ſtrung to exquiſite ſenſibility.

The 25th. The criticiſms that are made on Monſ. Necker's conduct, even by his friends, if above the level of the people, are ſevere. It is poſitively aſſerted, that Abbé Syeyes, Meſſrs. Mounier, Chapellier, Bernave, Target, Tourette, Rabaud, and other leaders, were almoſt on their knees to him, to inſiſt peremptorily on his reſignation being accepted, as they were well convinced that his retreat would throw the Queen's party into infinitely greater difficulties and embarraſſment than any other circumſtance. But his vanity prevailed over all their efforts to liſten to the inſidious perſuaſions of the Queen,

Queen, who ſpoke to him in the ſtyle of aſking it as a requeſt, that he would keep the crown on the King's head; at the ſame time that he yielded to do it, contrary to the intereſt of the friends of liberty, he ſeemed ſo pleaſed with the huzzas of the mob of Verſailles, that it did much miſchief. The miniſters never go to and from the King's apartment on foot, acroſs the court, which Monſ. Necker took this opportunity of doing, though he himſelf had not done it in quiet times, in order to court the flattery of being called the father of the people, and moving with an immenſe and ſhouting multitude at his heels. Nearly at the time that the Queen, in an audience almoſt private, ſpoke as above to M. Necker, ſhe received the deputation from the nobility, with the Dauphin in her hand, whom ſhe preſented to them, claiming of their honour, the protection of her ſon's rights; clearly implying, that if the ſtep the King had taken was not ſteadily purſued, the monarchy would be loſt, and the nobility ſunk. While M. Necker's mob was heard through every apartment of the chateau, the King paſſed in his coach to Marly, through a dead and mournful ſilence—and that juſt after having given to his people, and the cauſe of liberty, more perhaps than ever any monarch had done before. Of ſuch materials are all mobs made—ſo impoſſible is it to ſatisfy in moments like theſe, when the heated imagination dreſſes every viſionary project of the brain in the bewitching colours of liberty. I feel great anxiety to know what will be the reſult of the deliberations of the commons, after their firſt proteſts are over, againſt the military violence which was ſo unjuſtifiably and injudiciouſly uſed. Had the King's propoſition come after the ſupplies were granted, and on any inferior queſtion, it would be quite another affair; but to offer this before one ſhilling is granted, or a ſtep taken, makes all the difference imaginable.——Evening.—The conduct of the court is inexplicable, and without a plan: while the late ſtep was taken, to ſecure the orders ſitting ſeparate, a great body of the clergy had been permitted to go to the commons, and the Duc d'Orleans, at the head of forty-ſeven of the nobility, has done the ſame: and, what is equally a proof of the unſteadineſs of the court, the commons are in the common hall of the ſtates, contrary to the expreſs command of the King. The fact is, the ſeance royale was repugnant to the perſonal feelings of the King, and he was brought to it by the council with much difficulty; and when it afterwards became neceſſary, as it did every hour, to give new and effective orders to ſupport the ſyſtem then laid down, it was requiſite to have a new battle for every point; and thus the ſcheme was only opened, and not perſiſted in:—this is the report, and apparently authentic: it is eaſy to ſee, that that ſtep had better, on a thouſand reaſons, not have been taken at all, for all vigour and effect of government will be loſt, and the people be more aſſuming than ever. Yeſterday, at Verſailles, the mob was violent—they inſulted, and even attacked all the clergy and nobility that are known to be ſtrenuous for preſerving the ſeparation of orders. The Biſhop of Beauvais had a ſtone on his head, that almoſt ſtruck him down *. The Archbiſhop of Paris had all his windows broken, and forced to move his lodgings; and the Cardinal de la Rochefoucauld hiſſed and hooted. The confuſion is ſo great, that the court have only the troops to depend on; and it is now ſaid confidently, that if an order be given to the French guards to fire on the people, they will refuſe obedience: this aſtoniſhes all, except thoſe who know how they have been diſguſted by the treatment, conduct, and manœuvres of the Duc de Chatelet, their colonel: ſo wretchedly have the affairs of the court, in every particular, been managed; ſo miſerable its choice

* If they had treated him more ſeverely, he would not have been an object of much pity. At a meeting of the Society of Agriculture in the country, where common farmers were admitted to dine with people of the firſt rank, this proud fool made difficulties of ſitting down in ſuch company.

of

of the men in offices, even ſuch as are the moſt intimately connected with its ſafety, and even exiſtence. What a leſſon to princes, how they allow intriguing courtiers, women, and fools, to interfere, or aſſume the power that can be lodged, with ſafety, only in the hands of ability and experience! It is aſſerted expreſsly, that theſe mobs have been excited and inſtigated by the leaders of the commons, and ſome of them paid by the Duc d'Orleans. The diſtraction of the miniſtry is extreme.—At night to the theatre François; the Earl of Eſſex, and the Maiſon de Moliere.

The 26th. Every hour that paſſes here ſeems to give the people freſh ſpirit: the meetings at the Palais Royal are more numerous, more violent, and more aſſured; and in the aſſembly of electors, at Paris, for ſending a deputation to the National Aſſembly, the language that was talked, by all ranks of people, was nothing leſs than a revolution in the government, and the eſtabliſhment of a free conſtitution: what they mean by a free conſtitution is eaſily underſtood—a republic; for the doctrine of the times runs every day more and more to that point; yet they profeſs, that the kingdom ought to be a monarchy too; or, at leaſt, that there ought to be a king. In the ſtreets one is ſtunned by the haykers of ſeditious pamphlets, and deſcriptions of pretended events, that all tend to keep the people equally ignorant and alarmed. The ſupineneſs, and even ſtupidity of the court, is without example: the moment demands the greateſt deciſion—and yeſterday, while it was actually a queſtion, whether he ſhould be a Doge of Venice, or a King of France, the King went a hunting! The ſpectacle of the Palais Royal preſented this night, till eleven o'clock, and, as we afterwards heard, almoſt till morning, is curious. The croud was prodigious, and fire-works of all ſorts were played off, and all the building was illuminated: theſe were ſaid to be rejoicings on account of the Duc d'Orleans and the nobility joining the commons; but united with the exceſſive freedom, and even licentiouſneſs of the orators, who harangue the people; with the general movement which before was threatening, all this buſtle and noiſe, which will not leave them a moment tranquil, has a prodigious effect in preparing them for whatever purpoſes the leaders of the commons ſhall have in view; conſequently they are groſsly and diametrically oppoſite to the intereſts of the court;—but all theſe are blind and infatuated. It is now underſtood by every body, that the King's officers, in the ſeance royale, are out of the queſtion. The moment the commons found a relaxation, even in the trifling point of aſſembling in the great hall, they diſregarded all the reſt, and conſidered the whole as null, and not to be taken notice of, unleſs enforced in a manner of which there were no ſigns. They lay it down for a maxim, that they have a right to a great deal more than what the King touched on, but that they will accept of nothing as the conceſſion of power; they will aſſume and ſecure all to themſelves, as matters of right. Many perſons I talk with, ſeem to think there is nothing extraordinary in this,—but it appears, that ſuch pretenſions are equally dangerous and inadmiſſible, and lead directly to a civil war, which would be the height of madneſs and folly, when public liberty might certainly be ſecured, without any ſuch extremity. If the commons are to aſſume every thing as their right, what power is there in the ſtate, ſhort of arms, to prevent them from aſſuming what is not their right? They inſtigate the people to the moſt extenſive expectations, and if they be not gratified, all muſt be confuſion; and even the King himſelf, eaſy and lethargic as he is, and indifferent to power, will by and by be ſeriouſly alarmed, and ready to liſten to meaſures, to which he will not at preſent give a moment's attention. All this ſeems to point ſtrongly to great confuſion, and even civil commotions; and to make it apparent, that to have accepted the King's offers, and made them the foundation of future negociation, would have been the wiſeſt conduct—and with that idea I ſhall leave Paris.

The

The 27th. The whole buſineſs now ſeems over, and the revolution complete. The King has been frightened by the mobs into overturning his own act of the ſeance royale, by writing to the preſidents of the orders of the nobility and clergy, requiring them to join the commons,—in direct contradiction to what he had ordained before. It was repreſented to him, that the want of bread was ſo great in every part of the kingdom, that there was no extremity to which the people might not be driven: that they were nearly ſtarving, and conſequently ready to liſten to any ſuggeſtions, and on the qui vive for all ſorts of miſchief: that Paris and Verſailles would inevitably be burnt; and in a word, that all ſorts of miſery and confuſion would follow his adherence to the ſyſtem announced in the ſeance royale. His apprehenſions got the better of the party who had for ſome days guided him; and he was thus induced to take this ſtep, which is of ſuch importance, that he will never more know where to ſtop, or what to refuſe; or rather he will find, that in the future arrangement of the kingdom, his ſituation will be very nearly that of Charles I. a ſpectator, without power, of the effective reſolutions of a long parliament. The joy this ſtep occaſioned was infinite; the whole aſſembly, uniting with the people, hurried to the chateau. Vive le Roy might have been heard at Marly: the King and Queen appeared in the balcony, and were received with the loudeſt ſhouts of applauſe; the leaders, who governed theſe motions, knew the value of the conceſſion much better than thoſe who made it. I have to-day had converſation with many perſons on this buſineſs; and to my amazement, there is an idea, and even among many of the nobility, that this union of the orders is only for the verification of their powers, and for making the conſtitution, which is a new term they have adopted; and which they uſe as if a conſtitution were a pudding to be made by a receipt. In vain I have aſked, where is the power that can ſeparate them hereafter, if the commons inſiſt on remaining together, which may be ſuppoſed, as ſuch an arrangement will leave all the power in their hands? And in vain I appeal to the evidence of the pamphlets written by the leaders of that aſſembly, in which they hold the Engliſh conſtitution cheap, becauſe the people have not power enough, on account of that of the Crown and the Houſe of Lords The event now appears ſo clear, as not to be difficult to predict: all real power will be henceforward in the commons; having ſo much inflamed the people in the exerciſe of it, they will find themſelves unable to uſe it temperately; the court cannot ſit to have their hands tied behind them; the clergy, nobility, parliaments, and army, will, when they find themſelves in danger of annihilation, unite in their mutual defence; but as ſuch an union will demand time, they will find the people armed, and a bloody civil war muſt be the reſult. I have more than once declared this as my opinion, but do not find that others unite in it*. At all events, however, the tide now runs ſo ſtrongly in favour of the people, and the conduct of the court ſo weak, divided, and blind, that little can happen that will not clearly be dated from the preſent moment. Vigour and abilities would have turned every thing on the ſide of the court; for the great maſs of nobility in the kingdom, the higher clergy, the parliaments, and the army, were with the crown; but this deſertion of the conduct which was neceſſary to ſecure its power, at a moment ſo critical, muſt lead to

* I may remark at preſent, long after this was written, that, although I was totally miſtaken in my prediction, yet, on a reviſion, I think I had a reaſonable ground for it, and that the common courſe of events would have produced ſuch a civil war, to which every thing tended, from the moment the commons rejected the King's propoſitions of the *ſeance royale*, which I now think, more than ever, they ought, with qualifications, to have accepted. The events that followed were as little to be thought of as of myſelf being made King of France.

all

all ſorts of pretenſions. At night the fire-works, and illuminations, and mob, and noiſe, at the Palais Royal increaſed; the expence muſt be enormous; and yet nobody knows with certainty whence it ariſes: ſhops there are, however, that for 12 ſous, give as many ſquibs and ſerpents as would coſt five livres. There is no doubt of its being the Duc d'Orleans' money: the people are thus kept in a continual ferment, are for ever aſſembled, and ready to be in the laſt degree of commotion whenever called on by the men they have confidence in. Lately a company of Swiſs would have cruſhed all this; a regiment would do it now if led with firmneſs; but, let it laſt a fortnight longer, and an army will be requiſite.—At the play, Mademoiſelle Contá, in the Miſanthrope of Moliere, charmed me. She is truly a great actreſs; eaſe, grace, perſon, beauty, wit, and ſoul. Mola did the Miſanthrope admirably. I will not take leave of the theatre François without once more giving it the preference to all I have ever ſeen.

I ſhall leave Paris truly rejoiced that the repreſentatives of the people have it undoubtedly in their power ſo to improve the conſtitution of their country, as to render all great abuſes in future, if not impoſſible, at leaſt exceedingly difficult, and conſequently will eſtabliſh to all uſeful purpoſes, an undoubted political liberty; and if they effect this, it cannot be doubted but that they will have a thouſand opportunities to ſecure to their fellow-ſubjects the invaluable bleſſing of civil liberty alſo. The ſtate of the finances is ſuch, that the government may eaſily be kept virtually dependant on the ſtates, and their periodical exiſtence abſolutely ſecured. Such benefits will confer happineſs on twenty-five millions of people; a noble and animating idea, that ought to fill the mind of every citizen of the world, whatever be his country, religion, or purſuit. I will not allow myſelf to believe for a moment, that the repreſentatives of the people can ever ſo far forget their duty to the French nation, to humanity, and their own fame, as to ſuffer any inordinate and impracticable views,—any viſionary or theoretic ſyſtems,—any frivolous ideas of ſpeculative perfection; much leſs any ambitious private views, to impede their progreſs, or turn aſide their exertions, from that ſecurity which is in their hands, to place on the chance and hazard of public commotion and civil war, the invaluable bleſſings which are certainly in their power. I will not conceive it poſſible, that men, who have eternal fame within their graſp, will place the rich inheritance on the caſt of a die, and loſing the venture, be damned among the worſt and moſt profligate adventurers that ever diſgraced humanity.—The Duc de Liancourt having made an immenſe collection of pamphlets, buying every thing that has a relation to the preſent period; and among the reſt, the cahiers of all the diſtricts and towns of France of the three orders; it was a great object with me to read theſe, as I was ſure of finding in them a repreſentation of the grievances of the three orders, and an explanation of the improvements wiſhed for in the government and adminiſtration; theſe cahiers being inſtructions given to their deputies, I have now gone through them all, with a pen in hand, to make extracts, and ſhall therefore leave Paris tomorrow.

The 28th. Having provided myſelf a light French cabriolet for one horſe, or gig Anglois, and a horſe, I left Paris, taking leave of my excellent friend Monſieur Lazowſki, whoſe anxiety for the fate of his country made me reſpect his character as much as I had reaſon to love it for the thouſand attentions I was in the daily habit of receiving from him. My kind protectreſs, the Ducheſs d'Eſtiſſac, had the goodneſs to make me promiſe, that I would return again to her hoſpitable hotel, when I had finiſhed the journey I was about to undertake. Of the place I dined at on my road to Nangis, I forget the name, but it is a poſt-houſe on the left, at a ſmall diſtance out of

the road. It afforded me a bad room, bare walls, cold raw weather, and no fire; for, when lighted, it ſmoked too much to be borne;—I was thoroughly out of humour: I had paſſed ſometime at Paris amidſt the fire, energy, and animation of a great revolution. And for thoſe moments not filled by political events, I had enjoyed the reſources of liberal and inſtructing converſation; the amuſements of the firſt theatre in the world, and the faſcinating accents of Mandini, had by turns ſolaced and charmed the fleeting moments: the change to inns, and thoſe French inns; the ignorance in all perſons of thoſe events that were now paſſing, and which ſo intimately concerned them; the deteſtable circumſtance of having no newſpapers, with a preſs much freer than the Engliſh, altogether formed ſuch a contraſt, that my heart ſunk with depreſſion. At Guignes, an itinerant dancing-maſter was fiddling to ſome children of tradeſmen; to relieve my ſadneſs, I became a ſpectator of their innocent pleaſures, and, with great magnificence, I gave four 12*ſ.* pieces for a cake for the children, which made them dance with freſh animation; but my hoſt, the poſt-maſter, who is a ſurly pickpocket, thought that if I was ſo rich, he ought alſo to receive the benefit, and made me pay 9 livres 10*ſ.* for a miſerable tough chicken, a cutlet, a ſallad, and a bottle of ſorry wine. Such a dirty, pilfering diſpoſition, did not tend to bring me into better humour.——30 miles.

The 29th. To Nangis, the chateau of which belongs to the Marquis de Guerchy, who laſt year at Caen had kindly made me promiſe to ſpend a few days here. A houſe almoſt full of company, and ſome of them agreeable, with the eagerneſs of Monſieur de Guerchy for farming, and the amiable naiveté of the Marchioneſs, whether in life, politics, or a farm, were well calculated to bring me into tune again. But I found myſelf in a circle of politicians, with whom I could agree in hardly any other particular, except the general one of cordially wiſhing that France might eſtabliſh an indeſtructible ſyſtem of liberty; but for the means of doing it, we were far as the poles aſunder. The chaplain of Monſieur de Guerchy's regiment, who has a cure here, and whom I had known at Caen, Monſieur l'Abbé de ——, was particularly ſtrenuous for what is called the regeneration of the kingdom, by which it is impoſſible, from the explanation, to underſtand any thing more than a theoretic perfection of government; queſtionable in its origin, hazardous in its progreſs, and viſionary in its end; but always preſenting itſelf under a moſt ſuſpicious appearance to me, becauſe all its advocates, from the pamplets of the leaders in the National Aſſembly, to the gentlemen who make its panegyric at preſent, affect to hold the conſtitution of England cheap in reſpect of liberty: and as that is unqueſtionably, and by their own admiſſion, the beſt the world ever ſaw, they profeſs to appeal from practice to theory, which, in the arrangement of a queſtion of ſcience, might be admitted, though with caution; but, in eſtabliſhing the complex intereſt of a great kingdom, in ſecuring freedom to twenty-five millions of people, ſeems to me the very acmé of imprudence, the very quinteſſence of inſanity. My argument was an appeal to the Engliſh conſtitution; take it at once, which is the buſineſs of a ſingle vote; by your poſſeſſion of a real and equal repreſentation of the people, you have freed it from its only great objection; in the remaining circumſtances, which are but of ſmall importance, improve it—but improve it cautiouſly; for ſurely that ought to be touched with caution, which has given, from the moment of its eſtabliſhment, felicity to a great nation; which has given greatneſs to a people deſigned by nature to be little; and, from being the humble copiers of every neighbour, has rendered them, in a ſingle century, rivals of the moſt ſucceſsful nations in thoſe decorative arts that embelliſh human life; and the maſters of the world in all thoſe that contribute to its convenience. I was commended for my attachment to what I thought

was liberty; but anſwered, that the King of France muſt have no veto on the will of the nation; and that the army muſt be in the hands of the provinces, with an hundred ideas equally impracticable and prepoſterous. Yet theſe are the ſentiments which the court has done all in its power to ſpread through the kingdom; for will poſterity believe, that while the preſs has ſwarmed with inflammatory productions, that tend to prove the bleſſings of theoretical confuſion, and ſpeculative licentiouſneſs, not one writer of talents has been employed to refute and confound the faſhionable doctrines, nor the leaſt care taken to diſſeminate works of another complexion? By the way, when the court found that the ſtates could not be aſſembled on the old plan, and that great innovations muſt accordingly be made, they ought to have taken the conſtitution of England for their model; in the mode of aſſembling, they ſhould have thrown the Clergy and Nobles into one chamber, with a throne for the King, when preſent. The Commons ſhould have aſſembled in another, and each chamber, as in England, ſhould have verified its powers to itſelf only. And when the King held a ſeance royale, the Commons ſhould have been ſent for to the bar of the Lords, where ſeats ſhould have been provided; and the King, in the edict that conſtituted the ſtates, ſhould have copied from England enough of the rules and orders of proceeding to prevent thoſe preliminary diſcuſſions, which in France loſt two months, and gave time for heated imaginations to work upon the people too much. By taking ſuch ſteps, ſecurity would have been had, that if changes or events unforeſeen aroſe, they would at leaſt be met with in no ſuch dangerous channel as another form and order of arrangement would permit. ——15 miles.

The 30th. My friend's chateau is a conſiderable one, and much better built than was common in England in the ſame period, two hundred years ago; I believe, however, that this ſuperiority was univerſal in France, in all the arts. They were, I apprehend, in the reign of Henry IV. far beyond us in towns, houſes, ſtreets, roads, and, in ſhort, in every thing. We have ſince, thanks to liberty, contrived to turn the tables on them. Like all the chateaus I have ſeen in France, it ſtands cloſe to the town, indeed joining the end of it; but the back front, by means of ſome very judicious plantations, has entirely the air of the country, without the ſight of any buildings. There the preſent Marquis has formed an Engliſh lawn, with ſome agreeable winding walks of gravel, and other decorations, to ſkirt it. In this lawn they are making hay, and I have had the Marquis, Monſ. l'Abbé, and ſome others on the ſtack to ſhew them how to make and tread it: ſuch hot politicians!—it is well they did not ſet the ſtack on fire. Nangis is near enough to Paris for the people to be politicians; the perruquier that dreſſed me this morning tells me, that every body is determined to pay no taxes, ſhould the National Aſſembly ſo ordain.—But the ſoldiers will have ſomething to ſay.—No, Sir, never:—be aſſured as we are, that the French ſoldiers will never fire on the people: but, if they ſhould, it is better to be ſhot than ſtarved. He gave me a frightful account of the miſery of the people; whole families in the utmoſt diſtreſs; thoſe that work have a pay inſufficient to feed them—and many that find it difficult to get work at all. I enquired of Monſ. de Guerchy concerning this, and found it true. By order of the magiſtrates, no perſon is allowed to buy more than two buſhels of wheat at a market, to prevent monopolizing. It is clear to common ſenſe, that all ſuch regulations have a direct tendency to increaſe the evil, but it is in vain to reaſon with people whoſe ideas are immoveably fixed. Being here on a market-day, I attended, and ſaw the wheat ſold out under this regulation, with a party of dragoons drawn up before the market-croſs to prevent violence. The people quarrel with the bakers, aſſerting the prices they demand for bread are beyond the proportion of wheat, and proceeding

from words to ſcuffling, raiſe a riot, and then run away with bread and wheat for nothing: this has happened at Nangis, and many other markets; the conſequence was, that neither farmers nor bakers would ſupply them till they were in danger of ſtarving, and prices under ſuch circumſtances, muſt neceſſarily riſe enormouſly, which aggravated the miſchief, till troops became really neceſſary to give ſecurity to thoſe who ſupplied the markets. I have been ſifting Madame de Guerchy on the expences of living; our friend Monſ. L'Abbé joined the converſation, and I collect from it, that to live in a chateau like this, with ſix men-ſervants, five maids, eight horſes, a garden, and a regular table, with company, but never to go to Paris, might be done for 1000 louis a year. It would in England coſt 2000; the mode of living (not the price of things) is therefore cent. per cent. different. There are gentlemen (nobleſſe) who live in this country on 6 or 8000 livres, (262l. to 350l.), that keep two men, two maids, three horſes, and a cabriolet; there are the ſame in England, but they are fools. Among the neighbours who viſited Nangis was Monſ. Trudaine de Montigny, with his new and pretty wife, to return the firſt viſit of ceremony: he has a fine chateau at Montigny, and an eſtate of 4000 louis a year. This lady was Mademoiſelle de Cour Breton, niece to Madame Calonne; ſhe was to have been married to the ſon of Monſ. Lamoignon, but much againſt her inclinations; finding that common refuſals had no avail, ſhe determined on a very uncommon one, which was to go to church, in obedience to her father's orders, but to give a ſolemn NO inſtead of a *yes*. She was afterwards at Dijon, and never ſtirred but ſhe was received with huzzas and acclamations by the people for refuſing to be allied with la Cour Pleniere; and her firmneſs was every where ſpoken of much to her advantage. Monſ. la Luzerne, nephew to the French ambaſſador at London, was there, and who informed me, that he had learned to box of Mendoza. No one can ſay that he has travelled without making acquiſitions. Has the Duc d'Orleans alſo learned to box? The news from Paris is bad: the commotions increaſe greatly: and ſuch an alarm has ſpread, that the Queen has called the Marechal de Broglio to the King's cloſet; he has had ſeveral conferences: the report is, that an army will be collected under him. It may be now neceſſary; but woeful management to have made it ſo.

July 2. To Meux. Monſ. de Guerchy was ſo kind as to accompany me to Columiers; I had a letter to Monſ. Anveé Dumeé. Paſs Roſoy to Maupertius, through a country chearfully diverſified by woods, and ſcattered with villages; and ſingle farms ſpread every where as about Nangis. Maupertius ſeems to have been the creation of the Marquis de Monteſquieu, who has here a very fine chateau of his own building; an extenſive Engliſh garden, made by the Count d'Artois' gardener, with the town, has all been of his own forming. I viewed the garden with pleaſure; a proper advantage has been taken of a good command of a ſtream, and many fine ſprings which riſe in the grounds; they are well conducted, and the whole executed with taſte. In the kitchen-garden, which is on the ſlope of a hill, one of theſe ſprings has been applied to excellent uſe: it is made to wind in many doubles through the whole on a paved bed, forming numerous baſons for watering the garden, and might, with little trouble, be conducted alternately to every bed as in Spain. This is a hint of real utility to all thoſe who form gardens on the ſides of hills; for watering with pots and pails is a miſerable, as well as expenſive ſuccedaneum to this infinitely more effective method. There is but one fault in this garden, which is its being placed near the houſe, where there ſhould be nothing but lawn and ſcattered trees when viewed from the chateau. The road might be hidden by a judicious uſe of planting. The road to Columiers is admirably formed of broken ſtone, like gravel, by the Marquis of Monteſquieu, partly at his own ex-

pence. Before I finiſh with this nobleman, let me obſerve, that he is eſteemed by ſome the ſecond family in France, and by others, who admit his pretenſions, even the firſt; he claims from the houſe of Armagnac, which was undoubtedly from Charlemagne: the preſent King of France, when he ſigned ſome paper relative to this family, that ſeemed to admit the claim, or refer to it, remarked, that it was declaring one of his ſubjects to be a better gentleman than himſelf. But the houſe of Montmorenci, of which family are the Dukes of Luxembourg and Laval, and the Prince of Robec, is generally admitted to be the firſt. Monſ. de Monteſquieu is a deputy in the ſtates, one of the quarante in the French academy, having written ſeveral pieces: he is alſo chief miniſter to Monſieur, the King's brother, an office that is worth 100,000 livres a year, (4,375l.) Dine with Monſ. and Madame Dumeé; converſation here, as in every other town of the country, ſeems more occupied on the dearneſs of wheat than on any other circumſtance; yeſterday was market-day, and a riot enſued of the populace, in ſpite of the troops, that were drawn up as uſual to protect the corn: it riſes to 46 livres (2l. 3d.) the ſeptier, or half-quarter, and ſome is ſold yet higher. To Meux. ——32 miles.

The 3d. Meux was by no means in my direct road; but its diſtrict, Brie, is ſo highly celebrated for fertility, that it was an object not to omit. I was provided with letters for M. Bernier, a conſiderable farmer, at Chaucaunin, near Meux; and for M. Gibert, of Neuf Moutier, a conſiderable cultivator, whoſe father and himſelf had between them made a fortune by agriculture. The former gentleman was not at home; by the latter I was received with great hoſpitality; and I found in him the ſtrongeſt deſire to give me every information I wiſhed. Monſ. Gibert has built a very handſome and commodious houſe, with farming-offices, on the moſt ample and ſolid ſcale. I was pleaſed to find his wealth, which is not inconſiderable, to have ariſen wholly from the plough. He did not forget to let me know, that he was noble, and exempted from all tailles; and that he had the honours of the chace, his father having purchaſed the charge of Secretaire du Roi: but he very wiſely lives en fermier. His wife made ready the table for dinner, and his bailiff, with the female domeſtic, who has the charge of the dairy, &c. both dined with us. This is in a true farming ſtyle; it has many conveniencies, and looks like a plan of living, which does not promiſe, like the ſoppiſh modes of little gentlemen, to run through a fortune, from falſe ſhame and ſilly pretenſions. I can find no other fault with his ſyſtem than having built a houſe enormouſly beyond his plan of living, which can have no other effect than tempting ſome ſucceſſor, leſs prudent than himſelf, into expences that might diſſipate all his and his father's ſavings. In England that would certainly be the caſe; the danger, however, is not equal in France.

The 4th. To Chateau Thiery, following the courſe of the Marne. The country is pleaſantly varied, and hilly enough to be rendered a conſtant picture, were it encloſed. Thiery is beautifully ſituated on the ſame river. I arrived there by five o'clock, and wiſhed, in a period ſo intereſting to France, and indeed to all Europe, to ſee a newſpaper. I aſked for a coffee-houſe, not one in the town. Here are two pariſhes, and ſome thouſands of inhabitants, and not a newſpaper to be ſeen by a traveller, even in a moment when all ought to be anxiety.—What ſtupidity, poverty, and want of circulation! This people hardly deſerve to be free; and ſhould there be the leaſt attempt with vigour to keep them otherwiſe, it can hardly fail of ſucceeding. To thoſe who have been uſed to travel amidſt the energetic and rapid circulation of wealth, animation, and intelligence of England, it is not poſſible to deſcribe, in words adequate to one's feelings, the dulneſs and ſtupidity of France. I have been to-day on one of their greateſt roads, within thirty miles of Paris, yet I have not ſeen one diligence, and met but a

ſingle gentleman's carriage, nor any thing on the road that looked like a gentleman.—30 miles.

The 5th. To Mareuil. The Marne, about twenty-five rods broad, flows in an arable vale to the right. The country hilly, and parts of it pleaſant; from one elevation there is a noble view of the river. Mareuil is the reſidence of Monſ. Le Blanc, of whoſe huſbandry and improvements, particularly in ſheep of Spain, and cows of Switzerland, Monſ. de Brouſſonet had ſpoken very advantageouſly. This was the gentleman alſo on whom I depended for information relative to the famous vineyards of Epernay, that produce the fine Champagne. What therefore was my diſappointment, when his ſervants informed me that he was nine leagues off on buſineſs? Is Madame Le Blanc at home? No, ſhe is at Dormans. My complaining ejaculations were interrupted by the approach of a very pretty young lady, whom I found to be Mademoiſelle Le Blanc. Her mamma would return to dinner, her papa at night; and, if I wiſhed to ſee him, I had better ſtay. When perſuaſion takes ſo pleaſing a form, it is not eaſy to reſiſt it. There is a manner of doing every thing that either leaves it abſolutely indifferent or that intereſts. The unaffected good humour and ſimplicity of Mademoiſelle Le Blanc entertained me till the return of her mama, and made me ſay to myſelf, you will make a good farmer's wife. Madame Le Blanc, when ſhe returned, confirmed the native hoſpitality of her daughter; aſſured me, that her huſband would be at home early in the morning, as ſhe muſt diſpatch a meſſenger to him on other buſineſs. In the evening we ſupped with Monſ. B. in the ſame village, who married Madame Le Blanc's niece; we paſs Mareuil, through it, has the appearance of a ſmall hamlet of inconſiderable farmers, with the houſes of their labourers; and the ſentiment that would ariſe in moſt boſoms, would be that of picturing the baniſhment of being condemned to live in it. Who would think that there ſhould be two gentlemen's families in it; and that in one I ſhould find Mademoiſelle Le Blanc ſinging to her ſyſtrum, and in the other Madame B. young and handſome, performing on an excellent Engliſh piano forte? Compared notes of the expences of living in Champagne and Suffolk;—agreed, that 100 louis d'or a year in Champagne, were as good an income as 180 in England. On his return, Monſ. Le Blanc, in the moſt obliging manner, ſatisfied all my enquiries, and gave me letters for the moſt celebrated wine diſtricts.

The 7th. To Epernay, famous for its wines. I had letters for Monſ. Paretilaine, one of the moſt conſiderable merchants, who was ſo obliging as to enter, with two other gentlemen, into a minute diſquiſition of the produce and profit of the fine vineyards. The hotel de Rohan here is a very good inn, where I ſolaced myſelf with a bottle of excellent vin mouſſeux for 40*ſ.* and drank proſperity to *true* liberty in France.——12 miles.

The 8th. To Ay, a village not far out of the road to Rheims, very famous for its wines. I had a letter for Monſ. Laſnier, who has 60,000 bottles in his cellar, but unfortunately he was not at home. Monſ. Dorſé has from 30 to 40,000. All through this country the crop promiſes miſerably, not on account of the great froſt, but the cold weather of laſt week.

To Rheims, through a foreſt of five miles, on the crown of the hill, which ſeparates the narrow vale of Epernay from the great plain of Rheims. The firſt view of that city from this hill, juſt before the deſcent, at the diſtance of about four miles, is magnificent. The cathedral makes a great figure, and the church of St. Remy, terminates the town proudly. Many times I have had ſuch a view of towns in France, but when you enter them, all is a clutter of narrow, crooked, dark, and dirty lanes. At Rheims it is very different: the ſtreets are almoſt all broad, ſtrait, and well built, equal in that

reſpect

reſpect to any I have ſeen; and the inn, the hotel de Moulinet, is ſo large and well-ſerved, as not to check the emotions raiſed by agreeable objects, by giving an impulſe to contrary vibrations in the boſom of the traveller, which at inns in France is too often the caſe. At dinner they gave me a bottle alſo of excellent wine. I ſuppoſe fixed air is good for the rheumatiſm; I had ſome writhes of it before I entered Champagne, but the vin mouſſeux has abſolutely baniſhed it. I had letters for Monſ. Cadot L'ainé, a conſiderable manufacturer, and the poſſeſſor of a large vineyard, which he cultivates himſelf; he was therefore a double fund to me. He received me very politely, anſwered my enquiries, and ſhewed me his fabric. The cathedral is large, but does not ſtrike me like that of Amiens, yet ornamented, and many painted windows. They ſhewed me the ſpot where the kings are crowned. You enter and quit Rheims through ſuperb and elegant iron gates: in ſuch public decorations, promenades, &c. French towns are much beyond Engliſh ones. Stopped at Sillery, to view the wine preſs of the Marquis de Sillery; he is the greateſt wine-farmer in all Champage, having in his own hands one hundred and eighty arpents. Till I got to Sillery, I knew not that it belonged to the huſband of Madame de Genlis; but I determined, on hearing that it did, to preſume to introduce myſelf to the Marquis, ſhould he be at home: I did not like to paſs the door of Madame de Genlis without ſeeing her: her writings are too celebrated. La Petite Loge, where I ſlept, is bad enough indeed, but ſuch a reflection would have made it ten times worſe: the abſence, however, of both Monſ. and Madame quieted both my wiſhes and anxieties. He is in the ſtates.——28 miles.

The 9th. To Chalons, through a poor country and poor crops. M. de Brouſſonet had given me a letter to Monſ. Sabbatier, Secretary to the Academy of Sciences, but he was abſent. A regiment paſſing to Paris, an officer at the inn addreſſed me in Engliſh. He had learned, he ſaid, in America, damme!—*He* had taken Lord Cornwallis, damme! ——Marechal Broglio was appointed to command an army of fifty thouſand men near Paris—it was neceſſary—The tiers état were running mad—and wanted ſome wholeſome correction;——they want to eſtabliſh a republic—abſurd! Pray, Sir, what did you fight for in America? To eſtabliſh a republic. What was ſo good for the Americans, is it ſo bad for the French? Aye, damme! that is the way the Engliſh want to be revenged. It is, to be ſure, no bad opportunity. Can the Engliſh follow a better example? He then made many enquiries about what we thought and ſaid upon it in England: and I may remark, that almoſt every perſon I meet with has the ſame idea—The Engliſh muſt be very well contented at our confuſion. They feel pretty pointedly what they deſerve.——12½ miles.

The 10th. To Ove. Paſs Courtiſſeau, a ſmall village, with a great church; and though a good ſtream is here, not an idea of irrigation. Roofs of houſes almoſt flat, with projecting eaves, reſembling thoſe from Pau to Bayonne. At St. Menehoud a dreadful tempeſt, after a burning day, with ſuch a fall of rain, that I could hardly get to Monſ. l'Abbé Michel, to whom I had a letter. When I found him, the inceſſant flaſhes of lightning would allow me no converſation; for all the females of the houſe came into the room for the Abbé's protection I ſuppoſe; ſo I took leave. The vin de Champagne, which is 40s. at Rheims, is 3 livres at Chalons and here, and execrably bad; ſo there is an end of my phyſic for the rheumatiſm.——25 miles.

The 11th. Paſs Iſlets, a town (or rather collection of dirt and dung) of new features, that ſeem to mark, with the faces of the people, a country not French.——25 miles.

The 12th. Walking up a long hill, to ēaſe my mare, I was joined by a poor woman, who complained of the times, and that it was a ſad country; on my demanding her reaſons,

reaſons; ſhe ſaid her huſband had but a morſel of land, one cow, and a poor little horſe, yet he had a franchar (42 lb.) of wheat, and three chickens, to pay as a quit-rent to one Seigneur; and four franchar of oats, one chicken and 1s. to pay another, beſide very heavy tailles and other taxes. She had ſeven children, and the cow's milk helped to make the ſoup. But why, inſtead of a horſe, do not you keep another cow? Oh, her huſband could not carry his produce ſo well without a horſe; and aſſes are little uſed in the country. It was ſaid, at preſent, that ſomething was to be done by ſome great folks for ſuch poor ones, but ſhe did not know who nor how, but God ſend us better, *car les tailles & les droits nous écraſent.*—This woman, at no great diſtance, might have been taken for ſixty or ſeventy, her figure was ſo bent, and her face ſo furrowed and hardened by labour,—but ſhe ſaid ſhe was only twenty eight. An Engliſhman, who has not travelled, cannot imagine the figure made by infinitely the greater part of the countrywomen in France; it ſpeaks, at the firſt ſight, hard and ſevere labour: I am inclined to think, that they work harder than the men, and this united with the more miſerable labour of bringing a new race of ſlaves into the world, deſtroys abſolutely all ſymmetry of perſon and every feminine appearance. To what are we to attribute this difference in the manners of the lower people in the two kingdoms? To government.——23 miles.

The 13th. Leave Mar-le Tour at four in the morning: the village herdſman was ſounding his horn; and it was droll to ſee every door vomiting out its hogs or ſheep, and ſome a few goats, the flock collecting as it advances. Very poor ſheep, and the pigs with mathematical backs, large ſegments of ſmall circles. They muſt have abundance of commons here, but, if I may judge by the report of animals carcaſes, dreadfully overſtocked. To Metz, one of the ſtrongeſt places in France; paſs three drawbridges, but the command of water muſt give a ſtrength equal to its works. The common garriſon is ten thouſand men, but there are fewer at preſent. Waited on M. de Payen, ſecretary of the Academy of Sciences; he aſked my plan, which I explained; he appointed me at four in the afternoon at the academy, as there would be a ſeance held; and he promiſed to introduce me to ſome perſons who could anſwer my enquiries. I attended accordingly, when I found the academy aſſembled at one of their weekly meetings. Monſ. Payen introduced me to the members, and, before they proceeded to their buſineſs, they had the goodneſs to ſit in council on my enquiries, and to reſolve many of them. In the Almanach de Trois Evechés, 1789, this academy is ſaid to have been inſtituted particularly for agriculture; I turned to the liſt of their honorary members to ſee what attention they had paid to the men who, in the preſent age, have advanced that art. I found an Engliſhman, Dom Cowley, of London. Who is Dom Cowley?—Dined at the table d'hôte, with ſeven officers, out of whoſe mouths, at this important moment, in which converſation is as free as the preſs, not one word iſſued for which I would give a ſtraw, nor a ſubject touched on of more importance, than a coat, or a puppy dog. At tables de hôtes of officers, you have voluble garniture of bawdry or nonſenſe; at thoſe of merchants, a mournful and ſtupid ſilence. Take the maſs of mankind, and you have more good ſenſe in half an hour in England than in half a year in France.—Government! Again:—all—all—is government.——15 miles.

The 14th. They have a cabinet literaire at Metz, ſomething like that I deſcribed at Nantes, but not on ſo great a plan; and they admit any perſon to read or go in and out for a day, on paying 4s. To this I eagerly reſorted, and the news from Paris, both in the public prints, and by the information of a gentleman, I found to be intereſting. Verſailles and Paris are ſurrounded by troops: thirty-five thouſand men are aſſem-

aſſembled, and twenty thouſand more on the road, large trains of artillery collected, and all the preparations of war. The aſſembling of ſuch a number of troops has added to the ſcarcity of bread; and the magazines that have been made for their ſupport are not eaſily by the people diſtinguiſhed from thoſe they ſuſpect of being collected by monopoliſts. This has aggravated their evils almoſt to madneſs; ſo that the confuſion and tumult of the capital are extreme. A gentleman of an excellent underſtanding, and apparently of conſideration, from the attention paid him, with whom I had ſome converſation on the ſubject, lamented, in the moſt pathetic terms, the ſituation of his country; he conſiders a civil war as impoſſible to be avoided. There is not, he added, a doubt but the court, finding it impoſſible to bring the National Aſſembly to terms, will get rid of them; a bankruptcy at the ſame moment is inevitable; the union of ſuch confuſion muſt be a civil war; and it is now only by torrents of blood that we have any hope of eſtabliſhing a freer conſtitution: yet it muſt be eſtabliſhed; for the old government is rivetted to abuſes that are inſupportable. He agreed with me entirely, that the propoſitions of the ſeance royale, though certainly not ſufficiently ſatisfactory, yet, were the ground for a negociation, that would have ſecured by degrees all even that the ſword can give us, let it be as ſucceſsful as it will. The purſe—the power of the purſe is every thing; ſkilfully managed, with ſo neceſſitous a government as ours, it would, one after another, have gained all we wiſhed. As to a war, Heaven knows the event; and if we have ſucceſs, ſucceſs itſelf may ruin us; France may have a Cromwell in its boſom, as well as England. Metz is, without exception, the cheapeſt town I have been in. The table d'hôte is 36s. a head, plenty of good wine included. We were ten, and had two courſes and a deſert of ten diſhes each, and thoſe courſes plentiful. The ſupper is the ſame; I had mine, of a pint of wine and a large plate of chaudiés, in my chamber, for 10s. a horſe, hay, and corn 25s. and nothing for the apartment; my expence was therefore 71s. a day, or 2s. 11½d.; and with the table d'hôte for ſupper, would have been but 97s. or 4s. 0½d.—In addition, much civility and good attendance. It is at the Faiſan. Why are the cheapeſt inns in France the beſt?—The country to Pont-a-Mouſſon is all of bold features.—The river Moſelle, which is conſiderable, runs in the vale, and the hills on each ſide are high. Not far from Metz there are the remains of an ancient aqueduct for conducting the waters of a ſpring acroſs the Moſelle: there are many arches left on this ſide, with the houſes of poor people built between them. At Pont-a-Mouſſon Monſ. Pichon, the ſub-delegué of the intendant, to whom I had letters, received me politely, ſatisfied my enquiries, which he was well able to do from his office, and conducted me to ſee whatever was worth viewing in the town. It does not contain much; the école militaire, for the ſons of the poor nobility, alſo the couvent de Premontré, which has a very fine library, one hundred and ſeven feet long, and twenty-five broad. I was introduced to the abbot as a perſon who had ſome knowledge in agriculture.——17 miles.

The 15th. I went to Nancy, with great expectation, having heard it repreſented as the prettieſt town in France. I think, on the whole, it is not undeſerving the character in point of building, direction, and breadth of ſtreets.—Bourdeaux is far more magnificent; Bayonne and Nantes are more lively; but there is more equality in Nancy; it is almoſt all good; and the public buildings are numerous. The place royale, and the adjoining area are ſuperb. Letters from Paris! all confuſion! the miniſtry removed: Monſ. Necker ordered to quit the kingdom without noiſe. The effect on the people of Nancy was conſiderable.—I was with Monſ. Willemet when his letters arrived, and for ſome time his houſe was full of enquirers; all agreed, that

it was fatal news, and that it would occaſion great commotions. What will be the reſult at Nancy? The anſwer was in effect the ſame from all I put this queſtion to: We are a provincial town, we muſt wait to ſee what is done at Paris; but every thing is to be feared from the people, becauſe bread is ſo dear, they are half ſtarved, and are conſequently ready for commotion.——This is the general feeling; they are as nearly concerned as Paris; but they dare not ſtir; they dare not even have an opinion of their own till they know what Paris thinks; ſo that if a ſtarving populace were not in queſtion, no one would dream of moving. This confirms what I have often heard remarked, that the deficit would not have produced the revolution but in concurrence with the price of bread. Does not this ſhew the infinite conſequence of great cities to the liberty of mankind? Without Paris, I queſtion whether the preſent revolution, which is rapidly working in France, could poſſibly have had an origin. It is not in the villages of Syria or Diarbekir that the Grand Signor meets with a murmur againſt his will; it is at Conſtantinople that he is obliged to manage and mix caution even with deſpotiſm. Mr. Willemet, who is demonſtrator of botany, ſhewed me the botanical garden, but it is in a condition that ſpeaks the want of better funds. He introduced me to Monſ. Durival, who has written on the vine, and gave me one of his treatiſes, and alſo two of his own on botanical ſubjects. He alſo conducted me to Monſ. l'Abbé Grandpére, a gentleman curious in gardening, who, as ſoon as he knew that I was an Engliſhman, whimſically took it into his head to introduce me to a lady, my countrywoman, who hired, he ſaid, the greateſt part of his houſe. I remonſtrated againſt the impropriety of this, but all in vain; the Abbé had never travelled, and thought that if he were at the diſtance of England from France (the French are not commonly good geographers) he ſhould be very glad to ſee a Frenchman; and that, by parity of reaſoning, this lady muſt be the ſame to meet a countryman ſhe never ſaw or heard of. Away he went, and would not reſt till I was conducted into her apartment. It was the Dowager Lady Douglas; ſhe was unaffected, and good enough not to be offended at ſuch a ſtrange intruſion.—She had been here but a few days; had two fine daughters with her, and a beautiful Kamchatka dog; ſhe was much troubled with the intelligence her friends in the town had juſt given her, ſince ſhe would, in all probability, be forced to move again, as the news of Monſ. Necker's removal, and the new miniſtry being appointed, would certainly occaſion ſuch dreadful tumults, that a foreign family would probably find it equally dangerous and diſagreeable.——18 miles.

The 16th. All the houſes at Nancy have tin eave troughs and pipes, which render walking in the ſtreets much more eaſy and agreeable; it is alſo an additional conſumption, which is politically uſeful. Both this place and Luneville are lighted in the Engliſh manner, inſtead of the lamps being ſtrung acroſs the ſtreets as in other French towns. Before I quit Nancy, let me caution the unwary traveller, if he is not a great lord, with plenty of money that he does not know what to do with, againſt the hotel d'Angleterre; a bad dinner, 3 livres, and for the room as much more. A pint of wine and a plate of chaudié 20s. which at Metz was 10s. and in addition, I liked ſo little my treatment, that I changed my quarters to the hotel de Halle, where, at the table d'hôte, I had the company of ſome agreeable officers, two good courſes, and a deſert for 36s. with a botttle of wine. The chamber 20s.; for building, however, the hotel d'Angleterre is much ſuperior, and is the firſt inn. In the evening to Luneville. The country about Nancy is pleaſing.——17 miles.

The 17th. Luneville being the reſidence of Monſ. Lazowſki, the father of my much eſteemed friend, who was advertiſed of my journey, I waited on him in the morning;

he received me with not politeneſs only, but hoſpitality—with a hoſpitality I began to think was not to be found on this ſide of the kingdom.—From Mareuil hither, I had really been ſo unaccuſtomed to receive any attentions of that ſort, that it awakened me to a train of new feelings agreeable enough.—An apartment was ready for me, which I was preſſed to occupy, deſired to dine, and expected to ſtay ſome days: he introduced me to his wife and family, particularly to M. l'Abbé Lazowſki, who, with the moſt obliging alacrity, undertook the office of ſhewing me whatever was worth ſeeing.—We examined, in a walk before dinner, the eſtabliſhment of the orphans; well regulated and conducted. Luneville wants ſuch eſtabliſhments, for it has no manufactory, and therefore is very poor; I was aſſured not leſs than half the population of the place, or ten thouſand perſons are poor. Luneville is cheap. A cook's wages two, three, or four louis; a maid's, that dreſſes hair, three or four louis; a common houſemaid, one louis; a common footman, or a houſe lad, three louis. Rent of a good houſe ſixteen or ſeventeen louis. Lodgings of four or five rooms, ſome of them ſmall, nine louis. After dinner, wait on M. Vaux dit Pompone, an intimate acquaintance of my friend; here mingled hoſpitality and politeneſs alſo received me; and ſo much was I preſſed to dine with him to-morrow, that I ſhould certainly ſtay, were it merely for the pleaſure of more converſation with a very ſenſible and cultivated man, who, though advanced in years, has the talents and good humour to render his company univerſally agreeable: but I was obliged to refuſe it, having been out of order all day. Yeſterday's heat was followed, after ſome lightning, by a cold night, and I laid, without knowing it, with the windows open, and caught cold, I ſuppoſe, from the information of my bones. I am acquainted with ſtrangers as eaſily and quickly as any body, a habit that much travelling can ſcarcely fail to give, but to be ill among them would be enuyante, demand too much attention and encroach on their humanity. This induced me to refuſe the obliging wiſhes of both the Meſſrs. Lazowſkis, Monſ. Pompone, and alſo of a pretty and agreeable American lady, I met at the houſe of the latter. Her hiſtory is ſingular, and yet very natural. She was Miſs Blake, of New-York; what carried her to Dominica I know not; but the ſun did not ſpoil her complexion: a French officer, Monſ. Tibalié, on taking the iſland, made her his captive, and in turn became hers, fell in love, and married her; brought his prize to France, and ſettled her in his native town of Luneville. The regiment, of which he is major, being quartered in a diſtant province, ſhe complained of ſeeing her huſband not more than for ſix months in two years. She has been four years at Luneville; and having the ſociety of three children, is reconciled to a ſcene of life new to her. Monſ. Pompone, who, ſhe aſſured me, is one of the beſt men in the world, has parties every day at his houſe, not more to his own ſatisfaction than to her comfort.—This gentleman is another inſtance, as well as the major, of attachment to the place of nativity; he was born at Luneville; attended King Staniſlaus in ſome reſpectable office near his perſon; has lived much at Paris, and with the great, and had firſt miniſters of ſtate for his intimate friends; but the love of the natale ſolum brought him back to Luneville, where has lived beloved and reſpected for many years, ſurrounded by an elegant collection of books, amongſt which the poets are not forgotten, having himſelf no inconſiderable talents in transfuſing agreeable ſentiments into pleaſing verſes. He has ſome couplets of his own compoſition, under the portraits of his friends, which are pretty and eaſy. It would have given me much pleaſure to have ſpent ſome days at Luneville; an opening was made for me in two houſes, where I ſhould have met with a friendly and agreeable reception: but the misfortunes of tra-

velling are ſometimes the accidents that croſs the moments prepared for enjoyment; and at others, the ſyſtem of a journey inconſiſtent with the plans of deſtined pleaſure.

The 18th. To Haming, through an unintereſting country.——28 miles.

The 19th. To Savern, in Alſace: the country to Phalſbourg, a ſmall fortified town, on the frontiers, is much the ſame in appearance as hitherto. The women in Alſace wear ſtraw hats, as large as thoſe worn in England; they ſhelter the face, and ſhould ſecure ſome pretty country girls, but I have ſeen none yet. Coming out of Phalſbourg, there are ſome hovels miſerable enough, yet have chimnies and windows, but the inhabitants in the loweſt poverty. From that town to Savern all a mountain of oak timber, the deſcent ſteep, and the road winding. In Savern I found myſelf to all appearance truly in Germany; for two days paſt much tendency to a change, but here not one perſon in an hundred has a word of French; the rooms are warmed by ſtoves; the kitchen-hearth is three or four feet high, and various other trifles ſhew, that you are among another people. Looking at a map of France, and reading hiſtories of Louis XIV. never threw his conqueſt or ſeizure of Alſace into the ſame light, which travelling into it did: to croſs a great range of mountains; to enter a level plain, inhabited by a people totally diſtinct and different from France, with manners, language, ideas, prejudices, and habits all different, made an impreſſion of the injuſtice and ambition of ſuch a conduct, much more forcible than ever reading had done: ſo much more powerful are things than words.——22 miles.

The 20th. To Straſbourg, through one of the richeſt ſcenes of ſoil and cultivation to be met with in France, and exceeded by Flanders only. I arrived at Straſbourg at a critical moment, which I thought would have broken my neck; a detachment of horſe, with their trumpets on one ſide, a party of infantry, with their drums beating on the other, and a great mob hallooing, frightened my French mare; and I could ſcarcely keep her from trampling on Meſſrs. the tiers état. On arriving at the inn, hear the intereſting news of the revolt of Paris.—The Gardes Françoiſes joining the people; the little dependence on the reſt of the troops; the taking of the Baſtile; and the inſtitution of the milice bourgeoiſe; in a word, of the abſolute overthrow of the old government. Every thing being now decided, and the kingdom in the hands of the aſſembly, they have the power to make a new conſtitution, ſuch as they think proper; and it will be a great ſpectacle for the world to view, in this enlightened age, the repretatives of twenty-five millions of people ſitting on the conſtruction of a new and better order and fabric of liberty, than Europe has yet offered. It will now be ſeen, whether they will copy the conſtitution of England, freed from its faults, or attempt, from theory, to frame ſomething abſolutely ſpeculative: in the former caſe, they will prove a bleſſing to their country; in the latter, they will probably involve it in inextricable confuſions and civil wars, perhaps not in the preſent period, but certainly at ſome future one. I hear not of their removing from Verſailles; if they ſtay there under the controul of an armed mob, they muſt make a government that will pleaſe the mob; but they will, I ſuppoſe, be wiſe enough to move to ſome central town, Tours, Blois, or Orleans, where their deliberations may be free. But the Pariſian ſpirit of commotion ſpreads quickly; it is here; the troops, that were near breaking my neck, are employed to keep an eye on the people who ſhew ſigns of an intended revolt. They have broken the windows of ſome magiſtrates that are no favourites; and a great mob of them is at this moment aſſembled, demanding clamorouſly to have meat at 5s. a pound. They have a cry among them that will conduct them to good lengths,—"Point d'impôt & vivent les états."—Waited on Monſ. Herman, profeſſor of natural hiſtory in the Uni-

verſity here, to whom I had letters: he replied to ſome of my queſtions, and introduced me for others to Monſ. Zimmer, who having been in ſome degree a practitioner, had underſtanding enough of the ſubject to afford me ſome information that was valuable. View the public buildings, and croſs the Rhine paſſing for ſome little diſtance into Germany, but no new features to mark a change; Alſace is Germany, and the change great on deſcending the mountains. The exterior of the cathedral is fine, and the tower ſingularly light and beautiful; it is well known to be one of the higheſt in Europe; commands a noble and rich plain, through which the Rhine, from the number of its iſlands, has the appearance of a chain of lakes rather than of a river. Monument of Marechal Saxe, &c. &c. I am puzzled about going to Carlſrhue, the reſidence of the Margrave of Baden: it was my intention formerly to do it, if ever I were within an hundred miles; for there are ſome features in the reputation of that ſovereign, which made me wiſh to be there. He fixed Mr. Taylor, of Bifrons, in Kent, whoſe huſbandry I deſcribe in my Eaſtern Tour, on a large farm; and the œconomiſtes in their writings, or rather Phyſiocratical rubbiſh, ſpeak much of an experiment he made, which however erroneous their principles might be, marked much merit in the prince. Monſ. Herman tells me alſo, that he has ſent a perſon into Spain to purchaſe rams for the improvement of wool. I wiſh he had fixed on ſomebody likely to underſtand a good ram, which a profeſſor of botany is not likely to do too well. This botaniſt is the only perſon Monſ. Herman knows at Carlſrhue, and therefore can give me no letter thither, and how I can go, unknown to all the world, to the reſidence of a ſovereign prince, (for Mr. Taylor has left him) is a difficulty apparently inſurmountable.——22½ miles.

The 21ſt. I have ſpent ſome time this morning at the cabinet literaire, reading the gazettes and journals that give an account of the tranſactions at Paris: and I have had ſome converſation with ſeveral ſenſible and intelligent men on the preſent revolution. The ſpirit of revolt is gone forth into various parts of the kingdom; the price of bread has prepared the populace every where for all ſorts of violence; at Lyons there have been commotions as furious as at Paris, and the ſame at a great many other places: Dauphiné is in arms: and Bretagne in abſolute rebellion. The idea is, that the people will, from hunger, be driven to revolt; and when once they find any other means of ſubſiſtence than that of honeſt labour, every thing will be to be feared. Of ſuch conſequence it is to a country, and indeed to every country, to have a good police of corn; a police that ſhall, by ſecuring a high price to the farmer, encourage his culture enough to ſecure the people at the ſame time from famine. My anxiety about Carlſrhue is at an end; the Margrave is at Spaw; I ſhall not therefore think of going.——Night —I have been witneſs to a ſcene curious to a foreigner; but dreadful to Frenchmen that are conſiderate. Paſſing through the ſquare of the hotel de ville, the mob were breaking the windows with ſtones, notwithſtanding an officer and a detachment of horſe were in the ſquare. Perceiving that their numbers not only increaſed, but that they grew bolder and bolder every moment, I thought it worth ſtaying to ſee what it would end in, and clambered on to the roof of a row of low ſtalls oppoſite to the building, againſt which their malice was directed. Here I beheld the whole commodiouſly. Finding that the troops would not attack them, except in words and menaces, they grew more violent, and furiouſly attempted to beat the doors in pieces with iron crows; placing ladders to the windows. In about a quarter of an hour, which gave time for the aſſembled magiſtrates to eſcape by a back door, they burſt all open, and entered like a torrent with an univerſal ſhout of the ſpectators. From that minute a ſhower of caſements, faſhes, ſhutters, chairs, tables, ſophas, books, papers, pictures, &c. rained inceſſantly from all the windows of the houſe, which is ſeventy or eighty feet long, and which

which was then ſucceeded by tiles, ſkirting boards, banniſters, frame-work, and every part of the building that force could detach. The troops, both horſe and foot, were quiet ſpectators. They were at firſt too few to interpoſe, and, when they became more numerous, the miſchief was too far advanced to admit of any other conduct than guarding every avenue around, permitting none to go to the ſcene of action, but letting every one that pleaſed retire with his plunder; guards being at the ſame time placed at the doors of the churches, and all public buildings. I was for two hours a ſpectator at different places of the ſcene, ſecure myſelf from the falling furniture, but near enough to ſee a fine youth cruſhed to death by ſomething, as he was handing plunder to a woman, I ſuppoſe his mother, from the horror that was pictured in her countenance. I remarked ſeveral common ſoldiers, with their white cockades, among the plunderers, and inſtigating the mob even in ſight of the officers of the detachment. There were amongſt them people ſo decently dreſſed, that I regarded them with no ſmall ſurpriſe: —they deſtroyed all the public archives; the ſtreets for ſome way around ſtrewed with papers; this has been a wanton miſchief; for it will be the ruin of many families unconnected with the magiſtrates.

The 22d. To Scheleſtadt. At Straſbourg, and the country I paſſed, the lower ranks of women wear their hair in a toupee in front, and behind braided into a circular plait, three inches thick, and moſt curiouſly contrived to convince one that they rarely paſs a comb through it. I could not but picture them as the nidus of living colonies, that never approached me (they are not burthened with too much beauty), but I ſcratched my head from ſenſations of imaginary itching. The moment you are out of a great town all in this country is German; the inns have one common large room, many tables and cloths ready ſpread, where every company dines; gentry at ſome, and the poor at others. Cookery alſo German: ſchnitz is a diſh of bacon and fried pears; has the appearance of an infamous meſs; but I was ſurprized, on taſting, to find it better than paſſable. At Scheleſtadt I had the pleaſure of finding the Count de la Rochefoucauld, whoſe regiment (of Champagne), of which he is ſecond major, is quartered here. No attentions could be kinder than what I received from him; they were the renewal of the numerous ones I was in the habit of experiencing from his family; and he introduced me to a good farmer, from whom I had the intelligence I wanted.—— 25 miles.

The 23d. An agreeable quiet day, with the Count de la Rochefoucauld: dine with the officers of the regiment, the Count de Loumené, the colonel, nephew to the Cardinal de Loumené, preſent. Sup at my friend's lodgings; an officer of infantry, a Dutch gentleman, who has been much in the Eaſt Indies, and ſpeaks Engliſh. This has been a refreſhing day; the ſociety of well informed people, liberal, polite, and communicative, has been a contraſt to the ſombre ſtupidity of tables d'hôtes.

The 24th. To Iſenheim, by Colmar. The country is in general a dead level, with the Voge mountains very near to the right; thoſe of Suabia to the left; and there is another range very diſtant, that appears in the opening to the ſouth. The news at the table d'hôte at Colmar curious, that the Queen had a plot, nearly on the point of execution, to blow up the National Aſſembly by a mine, and to march the army inſtantly to maſſacre all Paris. A French officer preſent preſumed but to doubt of the truth of it, and was immediately overpowered with numbers of tongues. A deputy had written the news; they had ſeen the letter, and not a heſitation could be admitted: I ſtrenuouſly contended, that it was folly and nonſenſe, a mere invention to render perſons odious who, for what I knew, might deſerve to be ſo, but certainly not by ſuch means; if the angel Gabriel had deſcended and taken a chair at table to convince them, it would not have

ſhaken

ſhaken their faith. Thus it is in revolutions, one raſcal writes, and an hundred thouſand fools believe.——25 miles.

The 25th. From Iſenheim, the country changes from the dead flat, to pleaſant views and inequalities, improving all the way to Befort, but neither ſcattered houſes nor inclo-ſures. Great riots at Befort:—laſt night a body of mob and peaſants demanded of the magiſtrates the arms in the magazine, to the amount of three or four thouſand ſtands; being refuſed, they grew riotous, and threatened to ſet fire to the town, on which the gates were ſhut; and to-day the regiment of Bourgogne arrived for their protection. Monſ. Necker paſſed here to-day in his way from Baſle to Paris, eſcorted by fifty Bourgeois horſe-men, and through the town by the muſic of all the troops. But the moſt brilliant period of his life is paſt; from the moment of his reinſtatement in power to the aſſembling of the ſtates, the fate of France, and of the Bourbons, was then in his hands; and whatever may be the reſult of the preſent confuſions they will, by poſterity, be attributed to his conduct, ſince he had unqueſtionably the power of aſſembling the ſtates in whatever form he pleaſed: he might have had two chambers, three or one; he might have given what would unavoid-ably have melted into the conſtitution of England; all was in his hands; he had the greateſt opportunity of political architecture that ever was in the power of man: the great legiſlators of antiquity never poſſeſſed ſuch a moment: in my opinion he miſſed it completely, and threw that to the chance of the winds and waves, to which he might have given impulſe, di-rection, and life. I had letters to Monſ. de Bellonde, commiſſaire de Guerre; I found him alone: he aſked me to ſup, ſaying he ſhould have ſome perſons to meet me who could give me information. On my returning, he introduced me to Madame de Bel-londe, and a circle of a dozen ladies, with three or four young officers, leaving the room himſelf to attend Madame, the princeſs of ſomething, who was on her flight to Switzerland. I wiſhed the whole company very cordially at a great diſtance, for I ſaw, at one glance, what ſort of information I ſhould have. There was a little coterie in one corner liſtening to an officer's detail of leaving Paris. This gentleman informed us, that the Count d'Artois, and all the princes of the blood, except Monſieur, and the Duke d'Orleans, the whole connection of Polignac, the Marechal de Broglio, and an infinite number of the firſt nobility had fled the kingdom, and were daily followed by others; and laſtly, that the King, Queen, and royal family, were in a ſituation at Verſailles really dangerous and alarming, without any dependence on the troops near them, and, in fact, more like priſoners than free. Here is, therefore, a revolution effected by a ſort of magic; all powers in the realm are deſtroyed but that of the commons; and it now will remain to ſee what ſort of architects they are at rebuilding an edifice in the place of that which has been thus marvelloufly tumbled in ruins. Supper being announced, the company quitted the room, and as I did not puſh myſelf forward, I remained at the rear till I was very whimſically alone; I was a little ſtruck at the turn of the moment, and did not advance when I found myſelf in ſuch an extraordinary ſituation, in order to ſee whether it would arrive at the point it did. I then, ſmiling, took my hat, and walked fairly out of the houſe. I was, however, overtaken below; but I talked of buſineſs—or pleaſure—or of ſomething, or nothing—and hurried to the inn. I ſhould not have related this, if it had not been at a moment that carried with it its apology: the anxiety and diſtraction of the time muſt fill the head, and occupy the attention of a gentleman; —and, as to ladies, what can French ladies think of a man who travels for the plough? ——25 miles.

The 26th. For twenty miles to Liſle ſur Daube, the country nearly as before; but, after that, to Baumes les Dames, it is all mountainous and rocky, much wood, and many pleaſing ſcenes of the river flowing beneath. The whole country is in the greateſt agitation;

agitation; at one of the little towns I paſſed, I was queſtioned for not having a cockade of the tiers état. They ſaid it was ordained by the tiers, and if I were not a Seigneur, I ought to obey. But ſuppoſe I am a Seigneur, what then, my friends?—What then? they replied ſternly, why, be hanged; for that moſt likely is what you deſerve. It was plain this was no moment for joking, the boys and girls began to gather, whoſe aſſembling has every where been the preliminaries of miſchief; and if I had not declared myſelf an Engliſhman, and ignorant of the ordinance, I had not eſcaped very well. I immediately bought a cockade, but the huſſey pinned it into my hat ſo looſely, that before I got to Liſle, it blew into the river, and I was again in the ſame danger. My aſſertion of being Engliſh would not do. I was a Seigneur, perhaps in diſguiſe, and without doubt a great rogue. At this moment a prieſt came into the ſtreet with a letter in his hand: the people immediately collected around him, and he then read aloud a detail from Befort, giving an account of M. Necker's paſſing, with ſome general features of news from Paris, and aſſurances that the condition of the people would be improved. When he had finiſhed, he exhorted them to abſtain from all violence; and aſſured them, they muſt not indulge themſelves with any ideas of impoſitions being aboliſhed; which he touched on as if he knew that they had gotten ſuch notions. When he retired, they again ſurrounded me, who had attended to the letter like others; were very menacing in their manner; and expreſſed many ſuſpicions: I did not like my ſituation at all, eſpecially on hearing one of them ſay that I ought to be ſecured till ſomebody would give an account of me. I was on the ſteps of the inn, and begged they would permit me a few words; I aſſured them that I was an Engliſh traveller, and to prove it, I deſired to explain to them a circumſtance in Engliſh taxation, which would be a ſatisfactory comment on what Monſieur l'Abbé had told them, to the purport of which I could not agree. He had aſſerted, that the impoſitions muſt and would be paid as heretofore: that the impoſitions muſt be paid was certain, but not as heretofore, as they might be paid as they were in England. "Gentlemen, we have a great number of taxes in England, which you know nothing of in France; but the tiers état, the poor do not pay them: they are laid on the rich; every window in a man's houſe pays; but if he has no more than ſix windows, he pays nothing; a Seigneur, with a great eſtate, pays the vingtiemes and tailles, but the little proprietor of a garden pays nothing; the rich for their horſes, their voitures, their ſervants, and even for liberty to kill their own partridges, but the poor farmer nothing of all this; and what is more, we have in England a tax paid by the rich for the relief of the poor; hence the aſſertion of Monſieur l'Abbé, that becauſe taxes exiſted before they muſt exiſt again, did not at all prove that they muſt be levied in the ſame manner; our Engliſh method ſeemed much better." There was not a word of this diſcourſe they did not approve of; they ſeemed to think that I might be an honeſt fellow, which I confirmed by crying, "vive le tiers, ſans impoſitions," when they gave me a bit of a huzza, and I had no more interruption from them. My miſerable French was pretty much on a par with their patois. I got, however, another cockade, which I took care to have ſo faſtened as to loſe it no more. I do not like travelling in ſuch an unquiet and fermenting moment; one is not ſecure for an hour beforehand.—— 35 miles.

The 27th. To Beſançon; the country mountain, rock, and wood, above the river; ſome ſcenes are fine. I had not arrived an hour before I ſaw a peaſant paſs the inn on horſeback, followed by an officer of the garde burgeoiſe, of which there are twelve hundred here, and two hundred under arms, and his party-coloured detachment, and theſe by ſome infantry and cavalry. I aſked why the militia took the pas of the King's troops?

troops? "For a very good reaſon, they replied, the troops would be attacked and knocked on the head, but the populace will not reſiſt the militia." This peaſant, who is a rich proprietor, applied for a guard to protect his houſe, in a village where there is much plundering and burning. The miſchiefs which have been perpetrated in the country, towards the mountains and Veſoul, are numerous and ſhocking. Many chateaus have been burnt, others plundered, the ſeigneurs hunted down like wild beaſts, their wives and daughters raviſhed, their papers and titles burnt, and all their property deſtroyed; and theſe abominations not inflicted on marked perſons, who were odious for their former conduct or principles, but an indiſcriminating blind rage for the love of plunder. Robbers, galley-ſlaves, and villains of all denominations, have collected and inſtigated the peaſants to commit all ſorts of outrages. Some gentlemen at the table d'hôte informed me, that letters were received from the Maconois, the Lyonois, Auvergne, Dauphiné, &c. and that ſimilar commotions and miſchiefs were perpetrating every where; and that it was expected they would pervade the whole kingdom. The backwardneſs of France is beyond crediblity in every thing that pertains to intelligence. From Straſbourg hither, I have not been able to ſee a newſpaper. Here I aſked for the Cabinet Literaire? None. The gazettes? At the coffee-houſe. Very eaſily replied; but not ſo eaſily found. Nothing but the Gazette de France; for which, at this period, a man of common ſenſe would not give one ſol. To four other coffee-houſes, at ſome no paper at all, not even the Mercure; at the Caffé Militaire, the Courier de l'Europe a fortnight old; and well-dreſſed people are now talking of the news of two or three weeks paſt, and plainly by their diſcourſe know nothing of what is paſſing. The whole town of Beſançon has not been able to afford me a ſight of the Journal de Paris, nor of any paper that gives a detail of the tranſactions of the ſtates; yet it is the capital of a province, large as half a dozen Engliſh counties, and containing twenty-five thouſand ſouls—and, ſtrange to ſay! the poſt coming in but three times a week. At this eventful moment, with no licence, nor even the leaſt reſtraint on the preſs, not one paper eſtabliſhed at Paris for circulation in the provinces, with the neceſſary ſteps taken by affiche, or placard, to inform the people in all the towns of its eſtabliſhment. For what the country knows to the contrary, their deputies are in the Baſtile, inſtead of the Baſtile being razed; ſo the mob plunder, burn, and deſtroy, in complete ignorance: and yet, with all theſe ſhades of darkneſs, this univerſal maſs of ignorance, there are men every day in the ſtates, who are puffing themſelves off for the firſt nation in Europe! the greateſt people in the univerſe! as if the political juntos, or literary circles of a capital conſtituted a people; inſtead of the univerſal illumination of knowledge, acting by rapid intelligence on minds prepared by habitual energy of reaſoning, to receive, combine, and comprehend it. That this dreadful ignorance of the maſs of the people, of the events that moſt intimately concern them, ariſes from the old government, no one can doubt; it is, however, curious to remark, that if the nobility of other provinces are hunted like thoſe of Franche Comté, of which there is little reaſon to doubt, that whole order of men undergo a proſcription, and ſuffer like ſheep, without making the leaſt effort to reſiſt the attack. This appears marvellous, with a body that have an army of one hundred and fifty thouſand men in their hands; for though a part of thoſe troops would certainly diſobey their leaders, yet let it be remembered, that out of the forty thouſand, or poſſibly one hundred thouſand nobleſſe of France, they might, if they had intelligence and union amongſt themſelves, fill half the ranks of more than half the regiments of the kingdom, with men who have fellow-feelings and fellow-ſufferings with themſelves; but no meetings, no aſſociations among them; no union with military men; no taking of refuge in the

ranks of regiments to defend or avenge their cauſe; fortunately for France, they fall without a ſtruggle, and die without a blow. That univerſal circulation of intelligence, which in England tranſmits the leaſt vibration of feeling or alarm, with electric ſenſibility, from one end of the kingdom to another, and which unites in bands of connection men of ſimilar intereſts and ſituations, has no exiſtence in France. Thus it may be ſaid, perhaps with truth, that the fall of the King, court, lords, nobles, army, church, and parliaments, proceeds from a want of intelligence being quickly circulated, conſequently from the very effects of that thraldom in which they held the people: it is therefore a retribution rather than a puniſhment.——18 miles.

The 28th. At the table d'hôte laſt night a perſon gave an account of being ſtopped at Salins for want of a paſſport, and ſuffering the greateſt inconveniences; I found it neceſſary, therefore, to demand one for myſelf, and went accordingly to the Bureau; but went in vain: this was an air veritablement d'un commis.—Theſe paſſports are new things from new men, in new power, and ſhew that they do not bear their new honours too meekly. Thus it is impoſſible for me, without running my head againſt a wall, to viſit the Salins or Arbois, where I have a letter from M. de Brouſſonet, but I muſt take my chance and get to Dijon as faſt as I can, where the preſident de Virly knows me, having ſpent ſome days at Bradfield, unleſs indeed being a preſident and a nobleman, he has been knocked on the head by the tiers état. At night to the play; miſerable performers; the theatre, which has not been built many years, is heavy; the arch that parts the ſtage from the houſe is like the entrance of a cavern, and the line of the amphitheatre, that of a wounded eel; I do not like the air and manners of the people here. The muſic, and bawling, and ſqueaking of l'Epreuve Villageoiſe of Gritty, which is wretched, had no power to put me in better humour. I will not take leave of this place, to which I never deſire to come again, without ſaying that they have a fine promenade; and that Monſieur Arthaud, the arpenteur, to whom I applied for information without any letter of recommendation, was liberal and polite, and anſwered my inquiries ſatisfactorily.

The 29th. To Orechamp the country is bold and rocky, with fine woods, and yet it is not agreeable; it is like many men that have eſtimable points in their characters, and yet we cannot love them. Poorly cultivated too. Coming out of St. Veté, a pretty riant landſkip of the river doubling through the vale, enlivened by a village and ſome ſcattered houſes; the moſt pleaſing view I have ſeen in Franche Comté.——23 miles.

The 30th. The mayor of Dole is made of as good ſtuff as the notary of Beſançon; he would give no paſſport; but as he accompanied his refuſal with neither airs nor graces, I let him paſs. To avoid the centinels, I went round the town. The country to Auxonne is cheerful. Croſs the Soane at Auxonne; it is a fine river, through a region of flat meadow of beautiful verdure; commons for great herds of cattle; vaſtly flooded, and the hay-cocks under water. To Dijon is a fine country, but wants wood. My paſſport demanded at the gate; and as I had none, two bourgeois muſqueteers conducted me to the hotel de ville, where I was queſtioned, but finding that I was known at Dijon, they let me go to my inn. Out of luck; Monſieur de Virly, on whom I moſt depended for Dijon, is at Bourbon le Bains, and Monſieur de Morveau, the celebrated chemiſt, who I expected would have had letters for me, had none, and though he received me very politely, when I was forced to announce myſelf as his brother in the Royal Society of London, yet I felt very awkwardly; however, he deſired to ſee me again next morning. They tell me here, that the intendant is fled; and that the Prince of Condé, who is governor of Burgundy, is in Germany; they

they poſitively aſſert, and with very little ceremony, that they would both be hanged, if they were to come hither at preſent; ſuch ideas do not mark too much authority in the milice bourgeoiſe, as they have been inſtituted to ſtop and prevent hanging and plundering. They are too weak, however, to keep the peace; the licence and ſpirit of depredation, of which I heard ſo much in croſſing Franche Compté, has taken place, but not equally in Burgundy. In this inn, la Ville de Lyon, there is at preſent a gentleman, unfortunately a ſeigneur, his wife, family, three ſervants, an infant but a few months old, who eſcaped from their flaming chateau half naked in the night; all their property loſt except the land itſelf; and this family valued and eſteemed by the neighbours, with many virtues to command the love of the poor, and no oppreſſions to provoke their enmity. Such abominable actions muſt bring the greateſt deteſtation to the cauſe from being unneceſſary; the kingdom might have been ſettled in a real ſyſtem of liberty, without the regeneration of fire and ſword, plunder and bloodſhed. Three hundred bourgeois mount guard every day at Dijon, armed, but not paid at the expence of the town: they have alſo ſix pieces of cannon. The nobleſſe of the place, as the only means of ſafety, have joined them—ſo that there are croix de St. Louis in the ranks. The palais des états here, is a large and ſplendid building, but not ſtriking proportionably to the maſs and expence. The arms of the Prince of Condé are predominant; and the great ſalon is called the Salle à manger de Prince. A Dijon artiſt has painted the battle of Seniff, and the grand Condé thrown from his horſe, and a cieling, both well executed. Tomb of the Duke of Bourgogne, 1404. A picture by Reubens at the Chartreuſe. They talk of the houſe of Monſ. de Montigdy, but not ſhewn, his ſiſter being in it. Dijon, on the whole, is a handſome town; the ſtreets, though old built, are wide and very well paved, with the addition, uncommon in France, of trottoirs.——28 miles.

The 31ſt. Waited on Monſ. de Morveau, who has, moſt fortunately for me, received, this morning, from Monſ. de Virly, a recommendation of me, with four letters from Monſ. de Brouſſonet; but Monſ. Vaudrey, of this place, to whom one of them is addreſſed, is abſent. We had ſome converſation on the intereſting topic to all philoſophers, phlogiſton; Monſ. de Morveau contends vehemently for its non-exiſtence; treats Dr. Prieſtley's laſt publication as wide of the queſtion; and declared, that he conſiders the controverſy as much decided as the queſtion of liberty is in France. He ſhewed me part of the article air in the New Encyclopædia by him, to be publiſhed ſoon; in which work, he thinks he has, beyond controverſy, eſtabliſhed the truth of the doctrine of the French chymiſts of its non-exiſtence. Monſ. de Morveau requeſted me to call on him in the evening to introduce me to a learned and agreeable lady; and engaged me to dine with him to-morrow. On leaving him I went to ſearch coffee-houſes; but will it be credited, that I could find but one in this capital of Burgundy, where I could read the newſpapers?—At a poor little one in the ſquare, I read a paper, after waiting an hour to get it. The people I have found every where deſirous of reading newſpapers; but it is rare that they can gratify themſelves: and the general ignorance of what is paſſing may be collected from this, that I found nobody at Dijon had heard of the riot at the town-houſe of Straſbourg; I deſcribed it to a gentleman, and a party collected around me to hear it; not one of them had heard a ſyllable of it, yet it is nine days ſince it happened; had it been nineteen, I queſtion whether they would but juſt have received the intelligence; but, though they are ſlow in knowing what has really happened, they are very quick in hearing what is impoſſible to happen. The current report at preſent, to which all poſſible credit is given, is, that the Queen has been convicted of a plot to poiſon the King and Monſieur,

ſieur, and give the regency to the Count d'Artois; to ſet fire to Paris, and blow up the Palais Royal by a mine!—Why do not the ſeveral parties in the ſtates cauſe papers to be printed, that ſhall tranſmit their own ſentiments and opinions only, in order that no man in the nation, arranged under the ſame ſtandard of reaſoning, may want the facts that are neceſſary to govern his arguments, and the concluſions that great talents have drawn from thoſe facts? The King has been adviſed to take ſeveral ſteps of authority againſt the ſtates, but none of his miniſters have adviſed the eſtabliſhment of journals, and their ſpeedy circulation, that ſhould undeceive the people in thoſe points his enemies have miſrepreſented. When numerous papers are publiſhed in oppoſition to each other, the people take pains to ſift into and examine the truth; and that inquiſitiveneſs alone—the very act of ſearching, enlightens them; they become informed, and it is no longer eaſy to deceive them. At the table d'hôte three only, myſelf, and two noblemen, driven from their eſtates, as I conjecture by their converſation, but they did not hint at any thing like their houſes being burnt. Their deſcription of the ſtate of that part of the province they come from, in the road from Langres to Gray, is terrible; the number of chateaus burnt not conſiderable, but three in five plundered, and the poſſeſſors driven out of the country, and glad to ſave their lives. One of theſe gentlemen is a very ſenſible well informed man; he conſiders all rank, and all the rights annexed to rank, as deſtroyed in fact in France; and that the leaders of the National Aſſembly having no property, or very little themſelves, are determined to attack that alſo, and attempt an equal diviſion. The expectation is gotten among many of the people; but whether it take place or not, he conſiders France as abſolutely ruined. That, I replied, was going too far, for the deſtruction of rank did not imply ruin. "I call nothing ruin," he replied, "but a general and confirmed civil war, or diſmemberment of the kingdom; in my opinion, both are inevitable; not perhaps this year, or the next, or the year after that, but whatever government is built on the foundation now laying in France, cannot ſtand any rude ſhocks; an unſucceſsful or a ſucceſsful war will equally deſtroy it."—He ſpoke with great knowledge of hiſtorical events, and drew his political concluſions with much acumen. I have met with very few ſuch men at tables d'hôtes. It may be believed, I did not forget M. de Morveau's appointment. He was as good as his word; Madame Picardet is as agreeable in converſation as ſhe is learned in the cloſet; a very pleaſing unaffected woman; ſhe has tranſlated Scheele from the German, and a part of Mr. Kirwan from the Engliſh; a treaſure to M. de Morveau, for ſhe is able and willing to converſe with him on chymical ſubjects, and on any others that tend either to inſtruct or pleaſe. I accompanied them in their evening's promenade. She told me, that her brother, Monſ. de Poule, was a great farmer, who had ſown large quanties of ſainfoin, which he uſed for fattening oxen; ſhe was ſorry he was engaged ſo cloſely in the municipal buſineſs at preſent, that he could not attend me to his farm.

Auguſt 1. Dined with Monſ. de Morveau by appointment; Monſ. Profeſſeur Chauſſée, and Monſ. Picardet of the party. It was a rich day to me; the great and juſt reputation of Monſ. de Morveau, for being not only the firſt chymiſt of France, but one of the greateſt that Europe has to boaſt, was alone ſufficient to render his company intereſting; but to find ſuch a man void of affectation; free from thoſe airs of ſuperiority which are ſometimes found in celebrated characters, and that reſerve which oftener throws a veil over their talents, as well as conceals their deficiencies for which it is intended—was very pleaſing. Monſ. de Morveau is a lively, converſable, eloquent man, who, in any ſtation of life, would be ſought as an agreeable companion.

Even

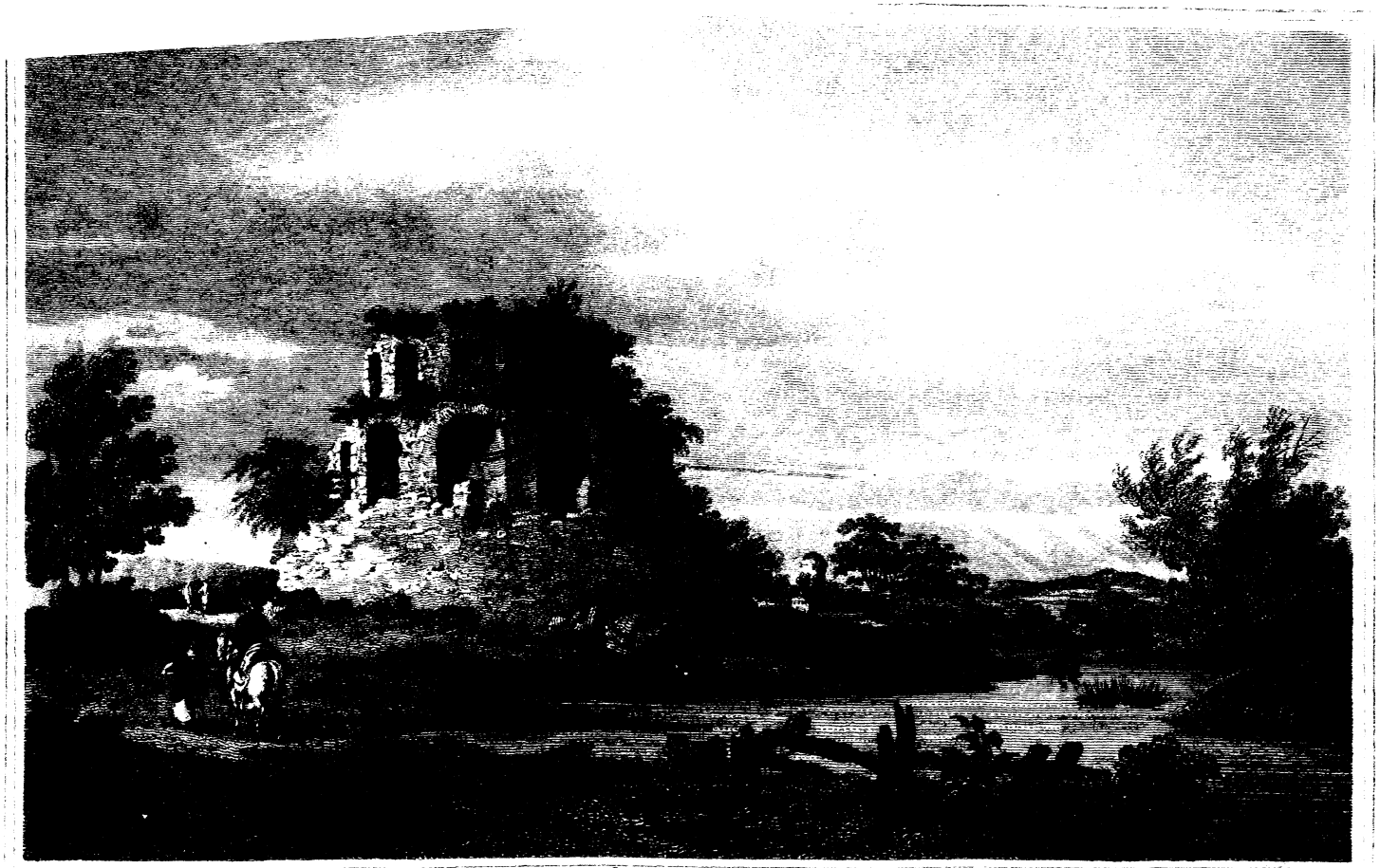
Even in this eventful moment of revolution, the converſation turned almoſt entirely on chymical ſubjects. I urged him, as I have done Dr. Prieſtley more than once, and Monſ. La Voiſier alſo, to turn his enquiries a little to the application of his ſcience to agriculture; that there was a fine field for experiments in that line, which could ſcarcely fail of making diſcoveries; to which he aſſented; but added, that he had no time for ſuch enquiries: it is clear, from his converſation, that his views are entirely occupied by the non-exiſtence of phlogiſton, except a little on the means of eſtabliſhing and enforcing the new nomenclature. While we were at dinner a proof of the New Encyclopædia was brought, the chymical part of which work is printed at Dijon, for the convenience of Monſ. de Morveau. I took the liberty of telling him, that a man who can deviſe the experiments which ſhall be moſt concluſive in aſcertaining the queſtions of a ſcience, and has talents to draw all the uſeful concluſions from them, ſhould be entirely employed in experiments, and their regiſter; and if I were king or miniſter of France, I would make that employment ſo profitable to him, that he ſhould do nothing elſe. He laughed, and aſked me, if I were ſuch an advocate for working, and ſuch an enemy to writing, what I thought of my friend Dr. Prieſtley? And he then explained to the two other gentlemen that great philoſopher's attention to metaphyſics, and polemic divinity. If an hundred had been at table, the ſentiment would have been the ſame in every boſom. Monſ. M. ſpoke, however, with great regard for the experimental talents of the Doctor, as indeed who in Europe does not? I afterwards reflected on Monſ. de Morveau's not having time to make experiments that ſhould apply chymiſtry to agriculture, yet having plenty of it for writing in ſo voluminous a work as Pankouck's. I lay it down as a maxim, that no man can eſtabliſh or ſupport a reputation in any branch of experimental philoſophy, ſuch as ſhall really deſcend to poſterity, otherwiſe than by experiment; and that commonly the more a man works, and the leſs he writes the better, at leaſt the more valuable will be his reputation. The profit of writing has ruined that of many (thoſe who know Monſ. de Morveau will be very ſure I am far enough from having him in my eye; his ſituation in life puts it out of the queſtion); that compreſſion of materials, which is luminous; that brevity which appropriates facts to their deſtined points, are alike inconſiſtent with the principles that govern all compilations; there are able and reſpectable men now in every country for compiling; experimenters of genius ſhould range themſelves in another claſs. If I were a ſovereign, and capable conſequently of rewarding merit, the moment I heard of a man of real genius engaged in ſuch a work I would give him double the bookſeller's price to let it alone, and to employ himſelf in paths that did not admit a rival at every door. There are who will think that this opinion comes oddly from one who has publiſhed ſo many books as I have; but I hope it will be admitted, to come naturally at leaſt from one who is writing a work from which he does not expect to make one penny, who, therefore, has ſtronger motives to brevity than temptations to prolixity. The view of this great chymiſt's laboratory will ſhew that he is not idle: it conſiſts of two large rooms, admirably furniſhed indeed. There are ſix or ſeven different furnaces, (of which Macquer's is the moſt powerful,) and ſuch a variety and extent of apparatus, as I have ſeen no where elſe, with a furniture of ſpecimens from the three kingdom, as looks truly like buſineſs. There are little writing deſks, with pens and paper, ſcattered every where, and in his library alſo, which is convenient. He has a large courſe of eudiometrical experiments going on at preſent, particularly with Fontana's and Volta's eudiometers. He ſeems to think that eudiometrical trials are to be depended on: keeps his nitrous air in quart bottles, ſtopped with common corks, but reverſed; and that the air is always

the ſame, if made from the ſame materials. A very ſimple and elegant method of aſcertaining the proportion of vital air he explained to us, by making the experiment; putting a morſel of phoſphorus into a glaſs retort, confined by water or mercury, and inflaming it, by holding a bougie under it. The diminution of air marks the quantity that was vital on the antiphlogiſtic doctrine. After one extinction, it will boil, but not enflame. He has a pair of ſcales made at Paris, which, when loaded with three thouſand grains, will turn with the twentieth part of one grain; an air pump, with glaſs barrels, but one of them broken and repaired; the Count de Buffon's ſyſtem of burning lens; an abſorber; a reſpirator, with vital air in a jar on one ſide, and lime-water in another; and abundance of new and moſt ingenious inventions for facilitating enquiries in the new philoſophy of air. Theſe are ſo various, and at the ſame time ſo well contrived to anſwer the purpoſe intended, that this ſpecies of invention ſeems to be one very great and eſſential part of Monſ. de Morveau's merit; I wiſh he would follow Dr. Prieſtley's idea of publiſhing his tools, it would add not inconſiderably to his great and well earned reputation, and at the ſame time promote the enquiries he engages in amongſt all other experimenters. M. de Morveau had the goodneſs to accompany me in the afternoon to the Academy of Sciences: they have a very handſome ſalon, ornamented with the buſts of Dijon worthies; of ſuch eminent men as this city has produced, Boſſuet—Fevret—De Broſſes—De Crebillon—Pyron—Bonhier—Rameau—and laſtly, Buffon; and ſome future traveller will doubtleſs ſee here, that of a man inferior to none of theſe, Monſ. de Morveau, by whom I had now the honour of being conducted. In the evening we repaired again to Madame Picardet, and accompanied her promenade: I was pleaſed, in converſation on the preſent diſturbances of France, to hear Monſ. de Morveau remark, that the outrages committed by the peaſants aroſe from their defects of lumieres. In Dijon it had been publicly recommended to the curées to enlighten them ſomewhat politically in their ſermons, but all in vain, not one would go out of the uſual routine of his preaching.—*Quere*, Would not one newſpaper enlighten them more than a ſcore of prieſts? I aſked Monſ. de Morveau, how far it was true that the chateaus had been plundered and burnt by the peaſants alone; or whether by thoſe troops of brigands, reported to be formidable? He aſſured me, that he has made ſtrict enquiries to aſcertain this matter, and is of opinion, that all the violences in this province, that have come to his knowledge, have been committed by the peaſants only; and much has been reported of brigands, but nothing proved. At Beſançon I heard of eight hundred; but how could a troop of eight hundred banditti march through a country, and leave their exiſtence the leaſt queſtionable?—as ridiculous as Mr. Baye's army incog.

The 2d. To Beaune; a range of hills to the right under vines, and a flat plain to the left, all open, and too naked. At the little inſignificant town of Nuys, forty men mount guard every day, and a large corps at Beaune. I am provided with a paſſport from the Mayor of Dijon, and a flaming cockade of the tiers état, and therefore hope to avoid difficulties; though the reports of the riots of the peaſants are ſo formidable, that it ſeems impoſſible to travel in ſafety. Stop at Nuys for intelligence concerning the vineyards of this country, ſo famous in France, and indeed in all Europe; and examine the Clos de Voujaud, of one hundred journaux, walled in, and belonging to a convent of Bernardine Monks.——When are we to find theſe fellows chuſing badly *? The ſpots they appropriate ſhew what a righteous attention they give to things of the ſpirit.——22 miles.

* Sold ſince by the Aſſembly for 1,140,600 livres, or 5001. ſterling, per journal.

The



The 3d. Going out of Chagnie, where I quitted the great Lyons road, paſs by the canal of Chaulais, which goes on very poorly; it is a truly uſeful undertaking, and therefore left undone; had it been for boring cannon, or coppering men of war, it would have been finiſhed long ago. To Montcenis a diſagreeable country; ſingular in its features. It is the ſeat of one of Monſ. Weelkainſong's eſtabliſhments for caſting and boring cannon: I have already deſcribed one near Nantes. The French ſay, that this active Engliſhman is brother-in-law of Dr. Prieſtly, and therefore a friend of mankind; and that he taught them to bore cannon in order to give liberty to America. The eſtabliſhment is very conſiderable; there are from five hundred to ſix hundred men employed, beſides colliers; five ſteam engines are erected for giving the blaſts, and for boring; and a new one building. I converſed with an Engliſhman who works in the glaſs-houſe, in the cryſtal branch; there were once many, but only two are left at preſent: he complained of the country, ſaying there was nothing good in it but wine and brandy; of which things I queſtion not but he makes a ſufficient uſe.——25 miles.

The 4th, By a miſerable country moſt of the way, and through hideous roads to Autun. The firſt ſeven or eight miles the agriculture quite contemptible. From thence to Autun all, or nearly all, incloſed, and the firſt ſo for many miles. From the hill before Autun an immenſe view down on that town, and the flat country of the Bourbonnois for a great extent.—View at Autun the temple of Janus—the walls—the cathedral—the abbey. The reports here of brigands, and burning and plundering, are as numerous as before; and when it was known in the inn that I came from Burgundy and Franche Compté, I had eight or ten people introducing themſelves, in order to aſk for news. The rumour of brigands here increaſed to one thouſand ſix hundred ſtrong. They were much ſurpriſed to find that I gave no credit to the exiſtence of brigands, as I was well perſuaded, that all the outrages that had been committed, were the work of the peaſants only, for the ſake of plundering. This they had no conception of, and quoted a liſt of chateaus burnt by them; but on analyſing theſe reports, they plainly appeared to be ill founded.——20 miles.

The 5th. The extreme heat of yeſterday made me feveriſh; and this morning I waked with a ſore throat. I was inclined to waſte a day here for the ſecurity of my health; but we are all fools in trifling with the things moſt valuable to us. Loſs of time, and vain expence, are always in the head of a man who travels as much en philoſophe as I am forced to do. To Maiſon de Bourgogne, I thought myſelf in a new world; the road is not only excellent, of gravel, but the country is incloſed and wooded. There are many gentle inequalities, and ſeveral ponds that add to the beauty of the country. The weather, ſince the commencement of Auguſt, has been clear, bright, and burning; too hot to be perfectly agreeable in the middle of the day, but no flies, and therefore I do not regard the heat. This circumſtance may, I think, be fixed on as the teſt. In Languedoc, &c. theſe heats, as I have experienced, are attended by myriads, and conſequently they are tormenting. One had need be ſick at this Maiſon de Bourgogne; a healthy ſtomach would not eaſily be filled; yet it is the poſt-houſe. In the evening to Luſy, another miſerable poſt-houſe. Note, through all Burgundy the women wear flapped men's hats, which have not nearly ſo good an effect as the ſtraw ones of Alſace.——22 miles.

The 6th. To eſcape the heat, out at four in the morning, to Bourbon Lancy, through the ſame country, incloſed, but wretchedly cultivated, and all amazingly improveable. If I had a large tract in this country, I think I ſhould not be long in making a fortune; climate, prices, roads, incloſures, and every advantage, except government. All

from Autun to the Loire is a noble field for improvement, not by expenſive operations of manuring and draining, but merely by ſubſtituting crops adapted to the ſoil. When I ſee ſuch a country thus managed, and in the hands of ſtarving metayers, inſtead of fat farmers, I know not how to pity the ſeigneurs, great as their preſent ſufferings are. I met one of them, to whom I opened my mind:—he pretended to talk of agriculture, finding I attended to it; and aſſured me he had Abbé Roziere's corps complet, and he believed, from his accounts, that this country would not do for any thing but rye. I aſked him, whether he or Abbé Roxier knew the right end of a plough? He aſſured me, that the Abbé was un homme de grand merite, beaucoup d'agriculteur. Croſs the Loire by a ferry; it is here the ſame naſty ſcene of ſhingle, as in Touraine. Enter the Bourbonnois; the ſame incloſed country, and a beautiful gravel road. At Chavanne le Roi, Monſ. Joly, the aubergiſte, informed me of three domains (farms) to be ſold, adjoining almoſt to his houſe, which is new and well built. I was for appropriating his inn at once in my imagination for a farm houſe, and was working on turnips and clover, when he told me, that if I would walk behind his ſtable, I might ſee, at a ſmall diſtance, two of the houſes; he ſaid the price would be about 50 or 60,000 livres (2,625l.), and would altogether make a noble farm. If I were twenty years younger, I ſhould think ſeriouſly of ſuch a ſpeculation; but there again is the folly and deficiency of life; twenty years ago, ſuch a thing would, for want of experience, have been my ruin; and, now I have the experience, I am too old for the undertaking.——27 miles.

The 7th. Moulins appears to be but a poor ill built town. I went to the Belle Image, but found it ſo bad, that I left, and went to the Lyon d'Or, which is worſe. This capital of the Bourbonnois, and on the great poſt road to Italy, has not an inn equal to the little village of Chavanne. To read the papers, I went to the coffee-houſe of Madame Bourgeau, the beſt in the town, where I found near twenty tables ſet for company, but, as to a newſpaper, I might as well have demanded an elephant.—Here is a feature of national backwardness, ignorance, ſtupidity, and poverty! In the capital of a great province, the ſeat of an intendant, at a moment like the preſent, with a National Aſſembly voting a revolution, and not a newſpaper to inform the people whether Fayette, Mirabeau, or Louis XVI. were on the throne. Companies at a coffee-houſe, numerous enough to fill twenty tables, and curioſity not active enough to command one paper. What impudence and folly!——Folly in the cuſtomers of ſuch a houſe not to inſiſt on half a dozen papers, and all the journals of the aſſembly; and impudence of the woman not to provide them! Could ſuch a people as this ever have made a revolution, or become free? Never, in a thouſand centuries! The enlightened mob of Paris, amidſt hundreds of papers and publications, have done the whole. I demanded why they had no papers? They are too dear; but ſhe made me pay 24ſ. for one diſh of coffee, with milk, and a piece of butter about the ſize of a walnut. It is a great pity there is not a camp of brigands in your coffee-room, Madame Bourgeau. Among the many letters for which I am indebted to Monſ. Brouſſonet, few have proved more valuable than one I had for Monſ. l'Abbé de Barut, principal of the college of Moulins, who entered with intelligence and animation into the object of my journey, and took every ſtep that was poſſible to get me well informed. He carried me to Monſ. le Count de Grimau, lieutenant-general of the Balliage, and director of the Society of Agriculture at Moulins, who kept us at dinner. He appears to be a man of conſiderable fortune, of information, and knowledge, agreeable and polite. He diſcourſed with me on the ſtate of the Bourbonnois; and aſſured me, that eſtates were rather given away than ſold: that the metayers were ſo miſerably poor, it was impoſſible for them to cultivate well. I ſtarted ſome obſervations on the modes

which ought to be purſued; but all converſation of that ſort is time loſt in France. After dinner, M. Grimau carried me to his villa, at a ſmall diſtance from the town, which is very prettily ſituated, commanding a view of the vale of the Allier. Letters from Paris, which contain nothing but accounts truly alarming, of the violences committed all over the kingdom, and particularly at and in the neighbourhood of the capital. M. Necker's return, which it was expected would have calmed every thing, has no effect at all; and it is particularly noted in the National Aſſembly, that there is a violent party evidently bent on driving things to extremity: men who, from the violence and conflicts of the moment, find themſelves in a poſition, and of an importance that reſults merely from public confuſion, will take effectual care to prevent the ſettlement, order, and peace, which, if eſtabliſhed, would be a mortal blow to their conſequence: they mount by the ſtorm, and would ſink in a calm. Among other perſons to whom Monſ. l'Abbé Barut introduced me, was the Marquis de Goutte, chef d'eſcadre of the French fleet, who was taken by Admiral Boſcawen at Louiſbourg, in 1758, and carried to England, where he learned Engliſh, of which he yet retains ſomething. I had mentioned to Monſ. l'Abbé Barut, that I had a commiſſion from a perſon of fortune in England, to look out for a good purchaſe in France; and knowing that the marquis would ſell one of his eſtates, he mentioned it to him. Monſ. de Goutte gave me ſuch a deſcription of it, that I thought, though my time was ſhort, that it would be very well worth beſtowing one day to view it, as it was no more than eight miles from Moulins, and, propoſing to take me to it the next day in his coach, I readily conſented. At the time appointed, I attended the Marquis, with M. l'Abbé Barut, to his chateau of Riaux, which is in the midſt of the eſtate he would ſell on ſuch terms, that I never was more tempted to ſpeculate: I have very little doubt but that the perſon who gave me a commiſſion to look out for a purchaſe, is long ſince ſickened of the ſcheme, which was that of a reſidence for pleaſure, by the diſturbances that have broken out here: ſo that I ſhould clearly have the refuſal of it myſelf. It would be upon the whole a more beneficial purchaſe than I had any conception of, and confirms Monſ. de Grimau's aſſertion, that eſtates here are rather given away than ſold. The chateau is large and very well built, containing two good rooms, either of which would hold a company of thirty people, with three ſmaller ones on the ground floor; on the ſecond ten bedchambers, and over them good garrets, ſome of which are well fitted up; all ſorts of offices ſubſtantially erected, and on a plan proportioned to a large family, including barns new built, for holding half the corn of the eſtate in the ſtraw, and granaries to contain it when threſhed. Alſo a wine preſs and ample cellaring, for keeping the produce of the vineyards in the moſt plentiful years. The ſituation is on the ſide of an agreeable riſing, with views not extenſive, but pleaſing, and all the country round of the ſame features I have deſcribed, being one of the fineſt provinces in France. Adjoining the chateau is a field of five or ſix arpents, well walled in, about half of which is in culture as a garden, and thoroughly planted with all ſorts of fruits. There are twelve ponds, through which a ſmall ſtream runs, ſufficient to turn two mills, that let at 1000 livres (43l. 15s.) a-year. The ponds ſupply the proprietor's table amply with fine carp, tench, perch, and eels; and yield beſides a regular revenue of 1000 livres. There are twenty arpents of vines that yield excellent white and red wine, with houſes for the vignerons; woods more than ſufficient to ſupply the chateau with fuel; and laſtly, nine domains or farms let to metayers, tenants at will, at half produce, producing, in caſh, 10,5000 livres, (459l. 7s. 6d.) conſequently the groſs produce, farms, mills, and fiſh, is 12,500 livres. The quantity of land, I conjecture from viewing it, as well as from notes taken, may be above 3000 arpents or acres, lying all contiguous and near the chateau. The out-

goings for thoſe taxes paid by the landlord; repairs, garde de chaſſe, game-keeper (for here are all the ſeigneural rights, haute juſtice, &c.), ſteward, expences on wine, &c. amount to about 4400 livres, (192l. 10s.) It yields therefore net ſomething more than 8000 livres (350l.) a year. The price aſked is 300,000 livres (13,125l.; but for this price is given the furniture complete of the chateau, all the timber, amounting, by valuation of oak only, to 80,000 livres, (1750l.) and all the cattle on the eſtate, viz. one thouſand ſheep, ſixty cows, ſeventy-two oxen, nine mares, and many hogs. Knowing, as I did, that I could, on the ſecurity of this eſtate, borrow the whole of the purchaſe-money, I withſtood no trifling temptation when I reſiſted it. The fineſt climate in France, perhaps in Europe; a beautiful and healthy country; excellent roads; a navigation to Paris; wine, game, fiſh, and every thing that ever appears on a table, except the produce of the tropics; a good houſe, a fine garden, ready markets for every ſort of produce; and, above all the reſt, three thouſand acres of incloſed land, capable in a very little time of being, without expence, quadrupled in its produce, altogether formed a picture ſufficient to tempt a man who had been five and-twenty years in the conſtant practice of the huſbandry adapted to this ſoil. But the ſtate of government—the poſſibility that the leaders of the Paris democracy might in their wiſdom aboliſh property as well as rank; and that in buying an eſtate I might be purchaſing my ſhare in a civil war—deterred me from engaging at preſent, and induced me to requeſt only that the Marquis would give me the refuſal of it, before he ſold it to any body elſe. When I have to treat with a perſon for a purchaſe, I ſhall wiſh to deal with ſuch an one as the Marquis de Goutte. He has a phyſiognomy that pleaſes me; the eaſe and politeneſs of his nation is mixed with great probity and honour; and is not rendered leſs amiable by an appearance of dignity that flows from an ancient and reſpectable family. To me he ſeems a man in whom one might, in any tranſaction, place implicit confidence. I could have ſpent a month in the Bourbonnois, looking at eſtates to be ſold; adjoining to that of M. de Goutte's is another of 270,000 livres purchaſe, Ballain; Monſ. l'Abbé Barut having made an appointment with the proprietor, carried me in the afternoon to ſee the chateau and a part of the lands; all the country is the ſame ſoil, and in the ſame management. It conſiſts of eight farms, ſtocked with cattle and ſheep by the landlord; and here too the ponds yield a regular revenue. Income at preſent 10,000 livres (437l. 10s.) a year; price 260,000 livres (11,375l.) and 10,000 livres for wood—twenty-five years purchaſe. Alſo near St. Poncin another of 400,000 livres, (17,500l.) the woods of which, four hundred and fifty acres produce 5000 livres a year; eighty acres of vines, the wines ſo good as to be ſent to Paris; good land for wheat, and much ſown; a modern chateau, avec toutes les aiſances, &c. And I heard of many others. I conjecture that one of the fineſt contiguous eſtates in Europe might at preſent be laid together in the Bourbonnois. And I am further informed, that there are at preſent ſix thouſand eſtates to be ſold in France; if things go on as they do at preſent, it will not be a queſtion of buying eſtates, but kingdoms, and France itſelf will be under the hammer. I love a ſyſtem of policy that inſpires ſuch confidence as to give a value to land, and that renders men ſo comfortable on their eſtates as to make the ſale of them the laſt of their ideas. Return to Moulins.—30 miles.

The 10th Took my leave of Moulins, where eſtates and farming have driven even Maria and the poplar from my head, and left me no room for the tombeau de Montmorenci; having paid extravagantly for the mud walls, cobweb tapeſtry, and unſavory ſcents of the Lyon d'Or, I turned my mare towards Chateaumeut, on the road to Auvergne. The accompaniment of the river makes the country pleaſant. I found the

inn full, buſy, and buſtling; Monſeigneur, the biſhop, coming to the fête of St. Laurence, patron of the pariſh here. Aſking for the commodité, I was deſired to walk into the garden. This has happened twice or thrice to me in France; I did not before find out that they were ſuch good cultivators in this country; I am not well made for diſpenſing this ſort of fertility; but my lord the biſhop and thirty fat prieſts will, after a dinner that has employed all the cooks of the vicinity, doubtleſs contribute amply to the amelioration of the lettuces and onions of Monſ. le Maitre de la Poſte. To St. Poncin.——30 miles.

The 11th. Early to Riom, in Auvergne. Near that town the country is intereſting; a fine wooded vale to the left, every where bounded by mountains; and thoſe nearer to the right of an intereſting outline. Riom, part of which is pretty enough, is all volcanic; it is built of lava from the quarries of Volvic, which are highly curious to a naturaliſt. The level plain, which I paſſed in going to Clermont, is the commencement of the famous Limagne of Auvergne, aſſerted to be the moſt fertile of all France; but that is an error, I have ſeen richer land in both Flanders and Normandy. This plain is as level as a ſtill lake; the mountains are all volcanic, and conſequently intereſting. Paſs a ſcene of very fine irrigation, that will ſtrike a farming eye, to Mont Ferrand, and after that to Clermont. Riom, Ferrand, and Clermont, are all built, or rather perched, on the tops of rocks. Clermont is in the midſt of a moſt curious country, all volcanic; and is built and paved with lava; much of it forms one of the worſt built, dirtieſt, and moſt ſtinking places I have met with. There are many ſtreets that can, for blackneſs, dirt, and ill ſcents, only be repreſented by narrow channels cut in a night dunghill. The contention of naufeous ſavours, with which the air is impregnated, when briſk mountain gales do not ventilate theſe excrementitious lanes, made me envy the nerves of the good people, who, for what I know, may be happy in them. It is the fair, the town full, and the tables d'hôtes crowded ——25 miles.

The 12th. Clermont is partly free from the reproach I threw on Moulins and Beſançon, for there is a ſalle à lecture at a Monſ. Bovares', a bookſeller, where I found ſeveral newſpapers and journals; but at the coffee-houſe I enquired for them in vain: they tell me alſo, that the people here are great politicians, and attend the arrival of the courier with impatience. The conſequence is, there have been no riots; the moſt ignorant will always be the readieſt for miſchief. The great news juſt arrived from Paris, of the utter abolition of tythes, feudal rights, game, warrens, pidgeons, &c. have been received with the greateſt joy by the maſs of the people, and by all not immediately intereſted; and ſome even of the latter approve highly of the declaration: but I have had much converſation with two or three very ſenſible perſons, who complain bitterly of the groſs injuſtice and cruelty of any ſuch declarations of what will be done, but is not effected and regulated at the moment of declaring. Monſ. l'Abbe Arbré, to whom Monſ. de Brouſſonet's letter introduced me, had the goodneſs not only to give me all the information relative to the curious country around Clermont, which, particularly as a naturaliſt, attracted his enquiries, but alſo introduced me to Monſ. Chabrol, as a gentleman who has attended much to agriculture, and who anſwered my enquiries in that line with great readineſs.

The 13th. At Roya, near Clermont, a village in the volcanic mountains, which are ſo curious, and of late years ſo celebrated, are ſome ſprings, reported by philoſophical travellers to be the fineſt and moſt abundant in France; to view theſe objects, and more ſtill, a very fine irrigation, ſaid alſo to be practiſed there, I engaged a guide. Report, when it ſpeaks of things of which the reporter is ignorant, is ſure to magnify; the irrigation is nothing more than a mountain ſide converted by water to ſome tolerable mea-

dow, but done coarſely, and not well underſtood. That in the vale, between Riom and Ferrand, far exceeds it. The ſprings are curious and powerful: they guſh, or rather burſt from the rock in four or five ſtreams, each powerful enough to turn a mill, into a cave a little below the village. About half a league higher there are many others; they are indeed ſo numerous, that ſcarcely a projection of the rocks or hills is without them. At the village, I found that my guide, inſtead of knowing the country perfectly, was in reality ignorant; I therefore took a woman to conduct me to the ſprings higher up the mountain; on my return, ſhe was arreſted by a ſoldier of the garde bourgeoiſe (for even this wretched village is not without its national militia) for having, without permiſſion, become the guide of a ſtranger. She was conducted to a heap of ſtones, they call the chateau. They told me they had nothing to do with me: but as to the woman, ſhe ſhould be taught more prudence for the future: as the poor devil was in jeopardy on my account, I determined at once to accompany them for the the chance of getting her cleared, by atteſting her innocence. We were followed by a mob of all the village, with the woman's children crying bitterly, for fear their mother ſhould be impriſoned. At the caſtle, we waited ſome time, and were then ſhewn into another apartment, where the town committee was aſſembled; the accuſation was heard; and it was wiſely remarked by all, that, in ſuch dangerous times as theſe, when all the world knew that ſo great and powerful a perſon as the Queen was conſpiring againſt France in the moſt alarming manner, for a woman to become the conductor of a ſtranger—and of a ſtranger who had been making ſo many ſuſpicious enquiries as I had, was a high offence. It was immediately agreed, that ſhe ought to be impriſoned. I aſſured them ſhe was perfectly innocent; for it was impoſſible that any guilty motive ſhould be her inducement; finding me curious to ſee the ſprings, as I had viewed the lower ones, and wanted a guide for ſeeing thoſe higher in the mountain, ſhe offered herſelf: and could have no other than the induſtrious view of getting a few ſols for her poor family. They then turned their enquiries againſt me, that if I wanted to ſee ſprings only, what induced me to aſk a multitude of queſtions concerning the price, value, and product of the lands? What had ſuch enquiries to do with ſprings and volcanoes? I told them, that cultivating ſome land in England, rendered ſuch things intereſting to me perſonally: and laſtly, that if they would ſend to Clermont, they might know, from ſeveral reſpectable perſons, the truth of all I aſſerted; and therefore I hoped, as it was the woman's firſt indiſcretion, for I could not call it offence, they would diſmiſs her. This was refuſed at firſt, but aſſented to at laſt, on my declaring, that if they impriſoned her, they ſhould do the ſame by me, and anſwer it as they could. They conſented to let her go, with a reprimand, and I departed; not marvelling, for I have done with that, at their ignorance, in imagining that the Queen ſhould conſpire ſo dangerouſly againſt their rocks and mountains. I found my guide in the midſt of the mob, who had been very buſy in putting as many queſtions about me, as I had done about their crops.—There were two opinions; one party thought I was a commiſſaire, come to aſcertain the damage done by the hail: the other, that I was an agent of the Queen's, who intended to blow the town up with a mine, and ſend all that eſcaped to the gallies. The care that muſt have been taken to render the character of that princeſs deteſted among the people, is incredible; and there ſeem every where to be no abſurdities too groſs, nor circumſtances too impoſſible for their faith. In the evening to the theatre, the Optimiſt well acted. Before I leave Clermont, I muſt remark, that I dined, or ſupped five times at the table d'hôte, with from twenty to thirty merchants and tradeſmen, officers, &c. and it is not eaſy for me to expreſs the inſignificance,—the inanity of the converſation. Scarcely any politics, at a moment when every boſom ought to beat with none but political

litical ſenſations. The ignorance or the ſtupidity of theſe people muſt be abſolutely incredible; not a week paſſes without their country abounding with events that are analyzed and debated by the carpenters and blackſmiths of England. The abolition of tythes, the deſtruction of the gabelle, game made property, and feudal rights deſtroyed, are French topics, that are tranſlated into Engliſh within ſix days after they happen, and their conſequences, combinations, reſults, and modifications, become the diſquiſition and entertainment of the grocers, chandlers, drapers, and ſhoemakers of all the towns of England; yet the ſame people in France do not think them worth their converſation, except in private. Why? becauſe converſation in private wants little knowledge; but in public it demands more; and therefore I ſuppoſe, for I confeſs there are a thouſand difficulties attending the ſolution, they are ſilent. But how many people, and how many ſubjects, on which volubility is proportioned to ignorance? Account for the fact as you pleaſe, but with me it admits no doubt.

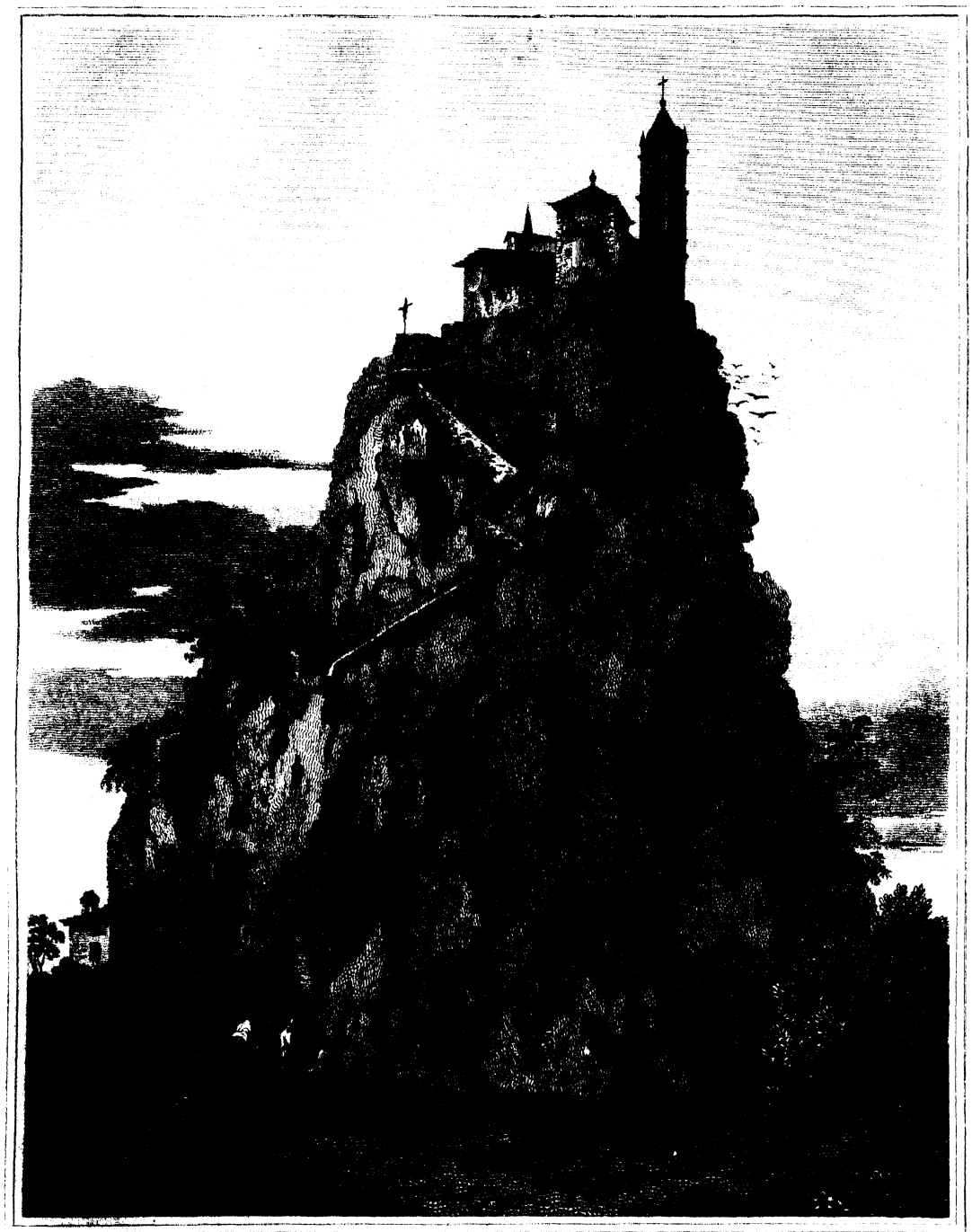
The 14th. To Izoire, the country all intereſting, from the number of conic mountains that riſe in every quarter; ſome are crowned with towns;—on others are Roman caſtles, and the knowledge that the whole is the work of ſubterranean fire, though in ages far too remote for any record to announce, keeps the attention perpetually alive. Monſ. de l'Arbre had given me a letter to Monſ. Brés, doctor of phyſic, at Izoire; I found him, with all the townſmen, collected at the hotel de ville, to hear the newſpaper read. He conducted me to the upper end of the room, and ſeated me by himſelf: the ſubject of the paper was the ſuppreſſion of the religious houſes, and the commutation of tythes. I obſerved that the auditors, among whom were ſome of the lower claſs, were very attentive; and the whole company ſeemed well pleaſed with whatever concerned the tythes and the monks. Monſ. Brés, who is a ſenſible and intelligent gentleman, walked with me to his farm, about half a league from the town, on a ſoil of ſuperior richneſs; like all other farms, this is in the hands of a metayer. Supped at his houſe afterwards, in an agreeable company, with much animated political converſation. We diſcuſſed the news of the day; they were inclined to approve of it very warmly; but I contended, that the National Aſſembly did not proceed on any regular well digeſted ſyſtem; that they ſeemed to have a rage for pulling down, but no taſte for rebuilding: that if they proceeded much farther on ſuch a plan, deſtroying every thing, but eſtabliſhing nothing, they would at laſt bring the kingdom into ſuch confuſion, that they would even themſelves be without power to reſtore it to peace and order; and that ſuch a ſituation would, in its nature, be on the brink of the precipice of bankruptcy and civil war. I ventured further, to declare it as my idea, that without an upper houſe, they never could have either a good or a durable conſtitution. We had a difference of opinion on theſe points; but I was glad to find, that there could be a fair diſcuſſion; and that, in a company of ſix or ſeven gentlemen, two would venture to agree with a ſyſtem ſo unfaſhionable as mine.——17 miles.

The 15th. The country continues intereſting to Brioud. On the tops of the mountains of Auvergne are many old caſtles, and towns, and villages. Paſs the river, by a bridge of one great arch, to the village of Lampdes. At that place, wait on Monſieur Greyffier de Talairat, avocat and ſubdelegué, to whom I had a letter; and who was ſo obliging as to anſwer, with attention, all my enquiries into the agriculture of the neighbourhood. He enquired much after Lord Briſtol; and was not the worſe pleaſed with me, when he heard that I came from the ſame province in England. We drank his Lordſhip's health, in the ſtrong white wine, kept four years in the ſun, which Lord Briſtol had much commended.——18 miles.

The

The 16th. Early in the morning, to avoid the heat, which has rather incommoded me, to Fix. Croſs the river by a ford, near the ſpot where a bridge is building, and mount gradually into a country, which continues intereſting to a naturaliſt, from its volcanic origin; for all has been either overturned, or formed by fire. Paſs Chomet; and deſcending, remark a heap of baſaltic columns by the road, to the right; they are ſmall, but regular ſexagons. Poulaget appears in the plain to the left. Stopped at St. George, where I procured mules, and a guide, to ſee the baſaltic columns at Chaſſac, which, however, are hardly ſtriking enough to reward the trouble. At Fix, I ſaw a field of fine clover; a ſight that I have not been regaled with, I think, ſince Alſace. I deſired to know to whom it belonged? to Monſ. Coffier, doctor of medicine. I went to his houſe to make enquiries, which he was obliging enough to gratify, and indulged me in a walk over the principal part of his farm. He gave me a bottle of excellent vin blanc mouſſeux, made in Auvergne. I enquired of him the means of going to the mine of antimony, four leagues from hence; but he ſaid the country was ſo enraged in that part, and had lately been ſo miſchievous, that he adviſed me by all means to give up the project. This country from climate, as well as pines, [illegible] been for three days paſt melted with heat; but to-day, th[illegible] as been quite moderate, like an Engliſh ſummer's day, and I am aſſured [illegible] never have it hotter; but complain of the winter's cold being very ſevere; and that the ſnow in the laſt was ſixteen inches deep on the level. The intereſting circumſtanc[illegible] whole is the volcanic origin: all buildings and walls are of lava: the roads are mended with lava, pozzolana, and baſaltes; and the face of the country every where exhibits the origin in ſubterranean fire. The fertility, however, is not apparent, without reflection. The crops are not extraordinary, and many bad; but then the height is to be conſidered. In no other country that I have ſeen are ſuch great mountains as theſe, cultivated ſo high; here corn is ſeen every where, even to their tops, at heights where it is uſual to find rock, wood, or ling (erica vulgaris)——42 miles.

The 17th. The whole range of the fifteen miles to Le Puy en Velay, is wonderfully intereſting. Nature, in the production of this country, ſuch as we ſee it at preſent, muſt have proceeded by means not common elſewhere. It is all in its form tempeſtuous as the billowy ocean. Mountain riſes beyond mountain, with endleſs variety: not dark and dreary, like thoſe of equal height in other countries, but ſpread with cultivation (feeble indeed) to the very tops. Some vales ſunk among them, of beautiful verdure, pleaſe the eye. Towards Le Puy the ſcenery is ſtill more ſtriking, from the addition of ſome of the moſt ſingular rocks any where to be ſeen. The caſtle of Polignac, from which the duke takes his title, is built on a bold and enormous one; it is almoſt of a cubical form, and towers perpendicularly above the town, which ſurrounds it at its foot. The family of Polignac claim an origin of great antiquity; they have preſumptions that go back, I forget whether to Hector or Achilles; but I never found any one in converſation inclined to allow them more than being in the firſt claſs of French families, which they undoubtedly are. Perhaps there is no where to be met with a caſtle more formed to give a local pride of family than this of Polignac; the man hardly exiſts that would not feel a certain vanity, at having given his own name, from remote antiquity, to ſo ſingular and ſo commanding a rock; but if, with the name, it belonged to me, I would ſcarcely ſell it for a province. The building is of ſuch antiquity, and the ſituation ſo romantic, that all the feudal ages paſs in review in one's imagination, by a ſort of magic influence; you recognize it for the reſidence of a lordly baron, who, in an age more diſtant and more reſpectable, though perhaps equally barbarous, was the patriot defender of his country againſt the invaſion and tyranny of Rome. In every age, ſince the horrible



Engraved by George Cooke.

St. Michel at Puy.

rible combuſtions of nature which produced it, ſuch a ſpot would be choſen for ſecurity and defence. To have given one's name to a caſtle, without any lofty pre-eminence or ſingularity of nature, in the midſt, for inſtance, of a rich plain, is not equally flattering to our feelings: all antiquity of family is derived from ages of great barbariſm, when civil commotions and wars ſwept away and confounded the inhabitants of ſuch ſituations. The Bretons of the plains of England were driven to Bretagne; but the ſame people, in the mountains of Wales, ſtuck ſecure, and remain there to this day. About a gun-ſhot from Polignac is another rock, not ſo large, but equally remarkable; and in the town of Le Puy, another commanding one riſes to a vaſt height; with another more ſingular for its tower-like form—on the top of which St. Michael's church is built. Gypſum and lime-ſtone abound; and the whole country is volcanic; the very meadows are on lava: every thing, in a word, is either the product of fire, or has been diſturbed or toſſed about by it. At Le Puy, fair day, and a table d'hôte, with ignorance, as uſual. Many coffee-houſes, and even conſiderable ones, but not a ſingle newſpaper to be found in any.——15 miles.

The 18th. Leaving Puy, the hill which the road mounts on the way to Coſterous, for four or five miles, commands a view of the town far more pictureſque than that of Clermont. The mountain, covered with its conical town, crowned by a vaſt rock, with thoſe of St. Michael and of Polignac, form a moſt ſingular ſcene. The road is a noble one, formed of lava and pozzolana. The adjacent declivities have a ſtrong diſpoſition to run into baſaltic pentagons and ſexagons, the ſtones put up in the road, by way of poſts, are parts of baſaltic columns. The inn at Pradelles, kept by three ſiſters, Pichots, is one of the worſt I have met with in France. Contraction, poverty, dirt, and darkneſs.——20 miles.

The 19th. To Thuytz; pine woods abound; there are ſaw-mills, and with ratchet wheels to bring the tree to the ſaw, without the conſtant attention of a man, as in the Pyrenees: a great improvement. Paſs by a new and beautiful road, along the ſide of immenſe mountains of granite; cheſnut trees ſpread in every quarter, and cover with luxuriance of vegetation rocks apparently ſo naked, that earth ſeems a ſtranger. This beautiful tree is known to delight in volcanic ſoils and ſituations: many are very large; I meaſured one fifteen feet in circumference, at five from the ground; and many are nine to ten feet, and fifty to ſixty high. At Maiſſe the fine road ends, and then a rocky, almoſt natural one for ſome miles; but for half a mile before Thuytz recover the new one again, which is here equal to the fineſt to be ſeen, formed of volcanic materials, forty feet broad, without the leaſt ſtone, a firm and naturally level cemented ſurface. They tell me that one thouſand eight hundred toiſes of it, or about two and a half miles, coſt 180,000 livres (6250l.) It conducts according to ſyſtem, to a miſerable inn, but with a large ſtable; and in every reſpect Monſieur Grenadier excels the Demoiſelles Pichots. Here mulberries firſt appear, and with them flies; for this is the firſt day I have been incommoded. At Thuytz I had an object which I ſuppoſed would demand a whole day: it is within four hours ride of the Montagne de la Coupe d'Ardes, of which M. Faujas de St. Fond has given a plate, in his Recherches ſur les volcanoes eteints, that ſhews it to be a remarkable object: I began to make enquiries, and arrangements for having a mule and a guide to go thither the next morning; the man and his wife ſeemed at dinner, and did not ſeem, from the difficulties they raiſed at every moment, to approve my plan: having aſked them ſome queſtions about the price of proviſions, and other things, I ſuppoſe they regarded me with ſuſpicious eyes, and thought that I had no good intentions. I deſired however to have the mule—ſome difficulties were made——I muſt have

have two mules—Very well, get me two. Then returning, a man was not to be had; with freſh expreſſions of ſurpriſe, that I ſhould be eager to ſee mountains that did not concern me. After raiſing freſh difficulties to every thing I ſaid, they at laſt plainly told me, that I ſhould neither have mule nor man; and this with an air that evidently made the caſe hopeleſs. About an hour after, I received a polite meſſage from the Marquis Deblou, ſeigneur of the pariſh, who hearing that an inquiſitive Engliſhman was at the inn, enquiring after volcanoes, propoſed the pleaſure of taking a walk with me. I accepted the offer with alacrity, and going directly towards his houſe met him on the road. I explained to him my motives and my difficulties; he ſaid, the people had gotten ſome abſurd ſuſpicions of me from my queſtions, and that the preſent time was ſo dangerous and critical to all travellers, that he would adviſe me by no means to think of any ſuch excurſions from the great road, unleſs I found much readineſs in the people to conduct me: that at any other moment than the preſent he ſhould be happy to do it himſelf, but that at preſent it was impoſſible for any perſon to be too cautious. There was no reſiſting this reaſoning, and yet to loſe the moſt curious volcanic remains in the country, for the crater of the mountain is as diſtinct in the print of Monſ. de St. Fond, as if the lava were now running from it, was a mortifying circumſtance. The Marquis then ſhewed me his garden and his chateau, amidſt the mountains; behind it is that of Gravene, which is an extinguiſhed volcano likewiſe, but the crater not diſcernible without difficulty. In converſation with him and another gentleman, on agriculture, particularly the produce of mulberries, they mentioned a ſmall piece of land that produced, by ſilk only, 120 livres (5l. 5s.) a year, and being contiguous to the road we walked to it. Appearing very ſmall for ſuch a produce, I ſtepped it to aſcertain the contents, and minuted them in my pocket-book. Soon after, growing dark, I took my leave of the gentlemen, and retired to my inn. What I had done had more witneſſes than I dreamt of; for at eleven o'clock at night, a full hour after I had been aſleep, the commander of a file of twenty milice bourgeoiſe, with their muſquets, or ſwords, or ſabres, or pikes, entered my chamber, ſurrounded my bed, and demanded my paſſport. A dialogue enſued, too long to minute; I was forced firſt to give them my paſſport, and, that not ſatisfying them, my papers. They told me that I was undoubtedly a conſpirator with the Queen, the Count d'Artois, and the Count d'Entragues (who has property here), who had employed me as an arpenteur, to meaſure their fields, in order to double their taxes. My papers being in Engliſh ſaved me. They had taken it into their heads that I was not an Engliſhman—only a pretended one; for they ſpeak ſuch a jargon themſelves, that their ears were not good enough to diſcover by my language that I was an undoubted foreigner. Their finding no maps, or plans, nor any thing that they could convert by ſuppoſition to a cadaſtre of their pariſh, had its effect, as I could ſee by their manner, for they converſed entirely in Patois. Perceiving, however, that they were not ſatisfied, and talked much of the Count d'Entragues, I opened a bundle of letters that were ſealed—theſe, gentlemen, are my letters of recommendation to various cities of France and Italy, open which you pleaſe, and you will find, for they are written in French, that I am an honeſt Engliſhman, and not the rogue you take me for. On this they held a freſh conſultation and debate, which ended in my favour; they refuſed to open the letters, prepared to leave me, ſaying, that my numerous queſtions about lands, and meaſuring a field, while I pretended to come after volcanoes, had raiſed great ſuſpicions, which they obſerved were natural at a time when it was known to a certainty that the Queen, the Count d'Artois, and the Count d'Entragues were in a conſpiracy againſt the Vivarais. And thus, to my entire ſatisfaction, they wiſhed me a good night,

and left me to the bugs, which ſwarmed in the bed like flies in a honey-pot. I had a narrow eſcape—it would have been a delicate ſituation to have been kept priſoner probably in ſome common gaol, or, if not, guarded at my own expence, while they ſent a courier to Paris for orders.——20 miles.

The 20th. The ſame impoſing mountainous features continue to Villeneuve de Berg. The road, for half a mile, leads under an immenſe maſs of baſaltic lava, run into configurations of various forms, and reſting on regular columns; this vaſt range bulges in the centre into a ſort of promontory. The height, form, and figures, and the deciſive volcanic character the whole maſs has taken, render it a moſt intereſting ſpectacle to the learned and unlearned eye. Juſt before Aubenas, miſtaking the road, which is not half finiſhed, I had to turn; it was on the ſlope of the declivity, and very rare that any wall or defence is found againſt the precipices. My French mare has an ill talent of backing too freely when ſhe begins: unfortunately ſhe exerciſed it at a moment of imminent danger, and backed the chaiſe, me and herſelf down the precipice; by great good luck, there was at the ſpot a ſort of ſhelf of rock, that made the immediate fall not more than five feet direct. I leaped out of the chaiſe in the moment, and fell unhurt: the chaiſe was overthrown and the mare on her ſide, entangled in the harneſs, which kept the carriage from tumbling down a precipice of ſixty feet. Fortunately ſhe lay quietly, for had ſhe ſtruggled both muſt have fallen. I called ſome lime-burners to my aſſiſtance, who were with great difficulty brought to ſubmit to directions, and not each purſue his own idea to the certain precipitation of both mare and chaiſe. We extricated her unhurt, ſecured the chaiſe, and then, with ſtill greater difficulty, regained the road with both. This was by far the narroweſt eſcape I have had. A bleſſed country for a broken limb—confinement for ſix weeks or two months at the Cheval Blanc, at Aubenas, an inn that would have been purgatory itſelf to one of my hogs: alone—without relation, friend, or ſervant, and not one perſon in ſixty that ſpeaks French. Thanks to the good providence that preſerved me! What a ſituation—I ſhudder at the reflection more than I did falling into the jaws of the precipice. Before I got from the place there were ſeven men about me, I gave them a 3 livre piece to drink, which for ſome time they refuſed to accept, thinking, with unaffected modeſty, that it was too much. At Aubeans repaired the harneſs, and, leaving that place, viewed the ſilk mills, which are conſiderable. Reach Villeneuve de Berg. I was immediately hunted out by the milice bourgeoiſe. Where is your certificate? Here again the old objection that my features and perſon were not deſcribed. Your papers? The importance of the caſe, they ſaid, was great: and they looked as big as if a marſhal's batton was in hand. They tormented me with an hundred queſtions; and then pronounced that I was a ſuſpicious looking perſon. They could not conceive why a Suffolk farmer could travel into the Vivarais. Never had they heard of any perſon travelling for agriculture! They would take my paſſport to the hotel de ville—have the permanent council aſſembled—and place a centinel at my door. I told them they might do what they pleaſed, provided they did not prohibit my dinner, as I was hungry; they then departed. In about half an hour a gentleman-like man, a Croix de St. Louis came, aſked me ſome queſtions very politely, and ſeemed not to conclude that Maria Antonietta and Arthur Young were at this moment in any very dangerous conſpiracy. He retired, ſaying, he hoped I ſhould not meet with any difficulties. In another half hour a ſoldier came to conduct me to the hotel de ville; where I found the council aſſembled; a good many queſtions were aſked; and ſome expreſſions of ſurpriſe that an Engliſh farmer ſhould travel ſo far for agriculture—they had never heard of ſuch a thing; but all was in a polite liberal manner; and though travelling for agriculture was as new to them, as if

it had been like the antient philoſopher's tour of the world on a cow's back, and living on the milk; yet they did not deem any thing in my recital improbable, ſigned my paſſport very readily, aſſured me of every aſſiſtance and civility I might want, and diſmiſſed me with the politeneſs of gentlemen. I deſcribed my treatment at Thuytz, which they loudly condemned. I took this opportunity to beg to know where that Pradel was to be found in this country, of which Oliver de Serres was ſeigneur, the well known French writer on agriculture in the reign of Henry IV. They at once pointed out of the window of the room we were in to the houſe, which in Villeneuve de Berg belonged to him, and informed me that Pradel was within a league. As this was an object I had noted before I came to France, the information gave me no ſlight ſatisfaction. The mayor, in the courſe of the examination, preſented me to a gentleman who had tranſlated Sterne into French, but who did not ſpeak Engliſh: on my return to the auberge I found that this was Monſ. de Boiſſiere, avocat general of the parliament of Grenoble. I did not care to leave the place without knowing ſomething more of one who had diſtinguiſhed himſelf by his attention to Engliſh literature; and I wrote to him a note, begging permiſſion to have the pleaſure of ſome converſation with a gentleman who had made our inimitable author ſpeak the language of a people he loved ſo well. Monſ. de Boiſſiere came to me immediately, conducted me to his houſe, introduced me to his lady and ſome friends, and as I was much intereſted concerning Oliver de Serres, he offered to take a walk with me to Pradel. It may eaſily be ſuppoſed that this was too much to my mind to be refuſed, and few evenings have been more agreeably ſpent. I regarded the reſidence of the great parent of French agriculture, and who was undoubtedly one of the firſt writers on the ſubject that had then appeared in the world, with that ſort of veneration, which thoſe only can feel who have addicted themſelves ſtrongly to ſome predominant purſuit, and find it in ſuch moments indulged in its moſt exquiſite feelings. Two hundred years after his exertions, let me do honour to his memory, he was an excellent farmer, and a true patriot, and would not have been fixed on by Henry IV. as his chief agent in the great project of introducing the culture of ſilk in France, if he had not poſſeſſed a conſiderable reputation; a reputation well earned, ſince poſterity has confirmed it. The period of his practice is too remote to gain any thing more than a general outline of what may now be ſuppoſed to have been his farm. The baſis of it is limeſtone; there is a great oak wood near the chateau, and many vines, with plenty of mulberries, ſome apparently old enough to have been planted by the hand of the venerable genius that has rendered the ground claſſic. The eſtate of Pradel, which is about 5000 livres (218l. 15s.) a year, belongs at preſent to the Marquis of Mirabel, who inherits it in right of his wife, as the deſcendant of De Serres. I hope it is exempted for ever from all taxes; he whoſe writings laid the foundation for the improvement of a kingdom, ſhould leave to his poſterity ſome marks of his country men's gratitude. When the preſent biſhop of Siſteron was ſhewn like me, the farm of De Serres, he remarked, that the nation ought to erect a ſtatue to his memory. The ſentiment is not without merit, though no more than common ſnuff-box chat; but if this biſhop has a well cultivated farm in his hands it does him honour. Supped with Monſ. and Madame de Boiſſiere, &c. and had the pleaſure of an agreeable and intereſting converſation.——21 miles.

The 21ſt. Monſ. de Boiſſiere, wiſhing to have my advice in the improvement of a farm, which he has taken into his hands, ſix or ſeven miles from Berg, in my road to Viviers, accompanied me thither. I adviſed him to form one well executed and well improved *incloſure* every year—to finiſh as he advances, and to do well what he attempts to do at all; and I cautioned him againſt the common abuſe of that excellent

huſbandry, paring and burning. I ſuſpect, however, that his homme d'affaire will be too potent for the Engliſh traveller. I hope he has received the turnip-ſeed I ſent him. Dine at Viviers, and paſs the Rhone. After the wretched inns of the Vivarais, dirt, filth, bugs, and ſtarving, to arrive at the hotel de Monſieur, at Montilimart, a great and excellent inn, was ſomething like the arrival in France from Spain: the contraſt is ſtriking; and I ſeemed to hug myſelf, that I was again in a chriſtian country, among the Milors Ninchitreas, and my Ladi Bettis, of Monſ. Chabot.——23 miles.

The 22d. Having a letter to Monſ. Faujas de St. Fond, the cebrated naturaliſt, who has favoured the world with many important works on volcanoes, aëroſtation, and various other branches of natural hiſtory, I had the ſatisfaction, on enquiring, to find, that he was at Montilimart; and, waiting on him, perceived that a man of diſtinguiſhed merit was handſomely lodged, with every thing about him that indicated an eaſy fortune. He received me with the frank politeneſs inherent in his character; introduced me, on the ſpot, to a Monſ. l'Abbé Berenger, who reſided near his country-ſeat, and was, he ſaid, an excellent cultivator; and likewiſe to another gentleman, whoſe taſte had taken the ſame good direction. In the evening Monſ. Faujas took me to call on a female friend, who was engaged in the ſame enquiries, Madame Cheinet, whoſe huſband is a member of the National Aſſembly; if he have the good luck to find at Verſailles ſome other lady as agreeable as her he has left at Montilimart, his miſſion will not be a barren one; and he may perhaps be better employed than in voting regenerations. This lady accompanied us in a walk for viewing the environs of Montilimart; and it gave me no ſmall pleaſure to find, that ſhe was an excellent farmereſs, practiſes conſiderably, and had the goodneſs to anſwer many of my enquiries, particularly in the culture of ſilk. I was ſo charmed with the naiveté of character, and pleaſing converſation of this very agreeable lady, that a longer ſtay here would have been delicious——but the plough!

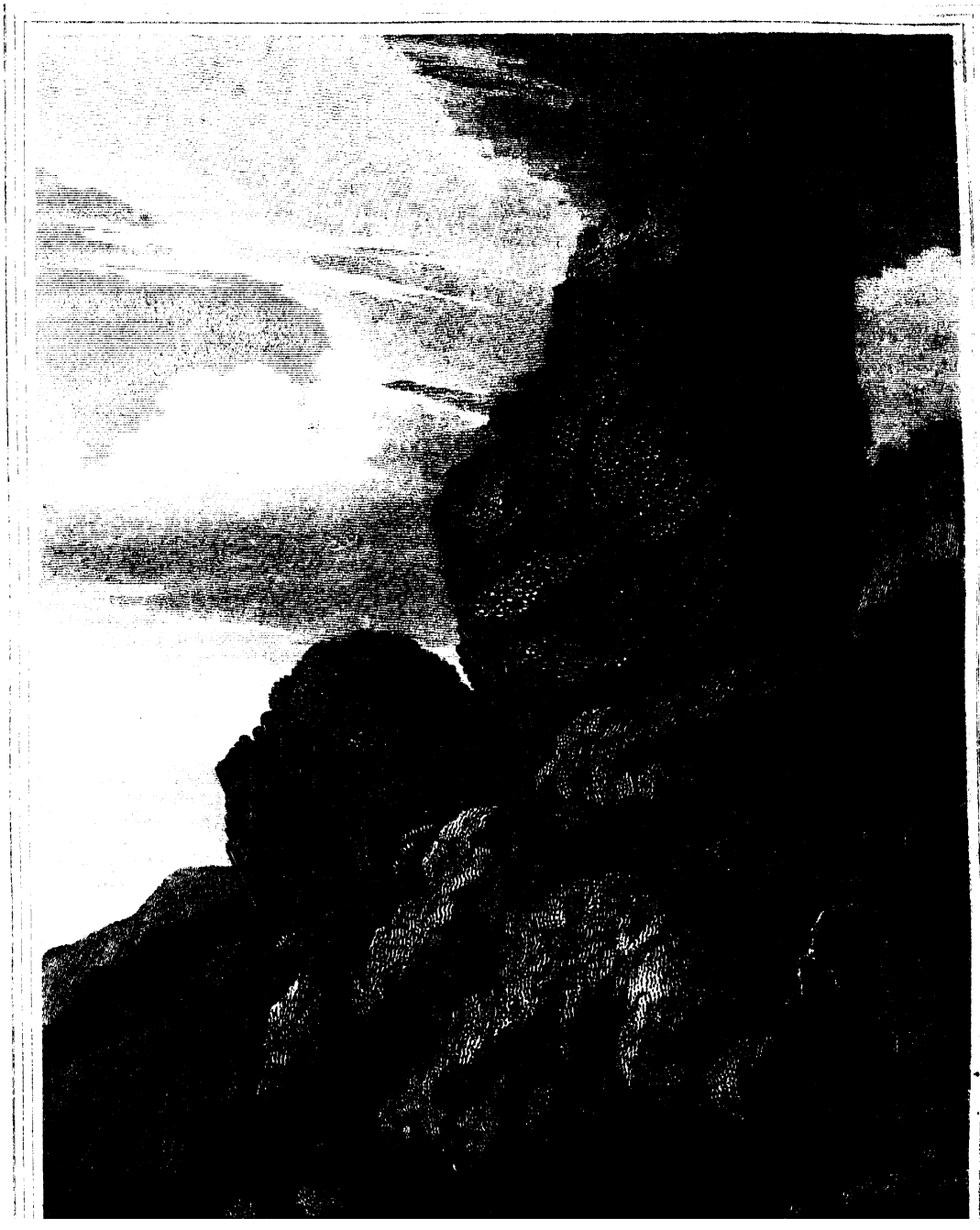
The 23d. By appointment accompanied Monſ. Faujas to his country-ſeat and farm at l'Oriol, fifteen miles north of Montilimart, where he is building a good houſe. I was pleaſed to find his farm to amount to two hundred and eighty ſeptrées of land: I ſhould have liked it better, had it not been in the hands of a metayer. Monſ. Faujas pleaſes me much; the livelineſs, vivacity, phlogiſton of his character, do not run into pertneſs, foppery, or affectation; he adheres ſteadily to a ſubject; and ſhews, that to clear up any dubious point, by the attrition of different ideas in converſation, gives him pleaſure; not through a vain fluency of colloquial powers, but for better underſtanding a ſubject. Monſ. Abbé Berenger, and another gentleman, paſſed the next day at Monſ. Faujas': we walked to the Abbé's farm. He is of the good order of beings, and pleaſes me much; curé of the pariſh, and preſident of the permanent council. He is at preſent warm on a project of re-uniting the proteſtants to the church; ſpoke, with great pleaſure, of having perſuaded them, on occaſion of the general thankſgiving for the eſtabliſhment of liberty, to return thanks to God, and ſing the Te Deum in the catholic church, in common, as brethren, which, from confidence in his character, they did. He is firmly perſuaded, that, by both parties giving way a little, and ſoftening or retrenching reciprocally ſomewhat in points that are diſagreeable, they may be brought together. The idea is ſo liberal, that I queſtion it for the multitude, who are never governed by reaſon, but by trifles and ceremonies,—and who are uſually attached to their religion, in proportion to the abſurdities it abounds with. I have not the leaſt doubt but the mob in England would be much more ſcandalized at parting with the creed of St. Athanaſius, than the whole bench of biſhops, whoſe illumination would perhaps reflect correctly that of the throne. Monſ. l'Abbé Berenger has prepared a

memorial, which is ready to be preſented to the National Aſſembly, propoſing and explaining this ideal union of the two religions; and he had the plan of adding a clauſe, propoſing that the clergy ſhould have permiſſion to marry. He was convinced that it would be for the intereſt of morals, and much for that of the nation, that the clergy ſhould not be an inſulated body, but holding by the ſame intereſts and connections as other people. He remarked, that the life of a curé, and eſpecially in the country, is melancholy; and, knowing my paſſion, obſerved, that a man could never be ſo good a farmer, on any poſſeſſion he might have, excluded from being ſucceeded by his children. He ſhewed me his memoir, and I was pleaſed to find that there is at preſent great harmony between the two religions, which muſt be aſcribed certainly to ſuch good curés. The number of proteſtants is very conſiderable in this neighbourhood. I ſtrenuouſly contended for the inſertion of the clauſe reſpecting marriage; aſſured him, that at ſuch a moment as this, it would do all who were concerned in this memorial the greateſt credit; and that they ought to conſider it as a demand of the rights of humanity, violently, injuriouſly, and relative to the nation, impolitically with-held. Yeſterday, in going with Monſ. Faujas, we paſſed a congregation of proteſtants, aſſembled, Druid like, under five or ſix ſpreading oaks, to offer their thankſgiving to the great Parent of their happineſs and hope. In ſuch a climate as this, is it not a worthier temple, built by the great hand they revere, than one of brick and mortar? This was one of the richeſt days I have enjoyed in France; we had a long and truly farming dinner; drank à l'Anglois ſucceſs TO THE PLOUGH; and had ſo much agricultural converſation, that I wiſhed for my farming friends in Suffolk to partake of my ſatisfaction. If Monſ. Faujas de St. Fond come to England, as he gives me hopes, I ſhall introduce him to them with pleaſure. In the evening return to Montilimart.——30 miles.

The 25th. To Chateau Rochemaur, acroſs the Rhone. It is ſituated on a baſaltick rock, nearly perpendicular, with every columnal proof of its volcanic origin. See Monſ. Faujas's Recherches. In the afternoon to Piere Latte, through a country ſteril, unintereſting, and far inferior to the environs of Montilimart.——22 miles.

The 26th. To Orange, the country not much better; a range of mountains to the eaſt, but nothing of the Rhone. At that town there are remains of a large Roman building, twenty or eighty feet high, called a circus, of a triumphal arch, which, though a good deal deceived, manifeſts, in its remains, no ordinary decoration, and a pavement in the houſe of a poor perſon, which is very perfect and beautiful, but much inferior to that at Montlimart. The vent de bize has blown ſtrongly for ſeveral days, with a clear ſky, tempering the heats, which are ſometimes ſultry and oppreſſive; it may, for what I know, be wholeſome to French conſtitutions, but it is dreadful to mine; I found myſelf very indifferent, and, as if I were going to be ill, a new and unuſual ſenſation over my whole body: never dreaming of the wind, I knew not what to attribute it to, but my complaint coming at the ſame time, puts it out of doubt; beſides, inſtinct now, much more than reaſon, makes me guard as much as I can againſt it. At four or five in the morning it is ſo cold that no traveller ventures out. It is more penetratingly cold than I had any conception of; other winds ſtop the cutaneous perſpiration; but this ſpreading through the body ſeems, by its ſenſation, to dry up all the interior humidity.——26 miles.

The 27th. To Avignon.—Whether it were becauſe I had read much of this town in the hiſtory of the middle ages, or becauſe it had been the reſidence of the Popes, or more probably from the ſtill more intereſting memoirs which Petrarch has left concerning it, in poems that will laſt as long as Italian elegance and human feelings ſhall exiſt, I know not—but I approached the place with a ſort of intereſt, attention, and expect-



ancy, that few towns have kindled. Laura's tomb is in the church of the Cordeliers; it is nothing but a ſtone in the pavement, with a figure engraven on it partly effaced, ſurrounded by an inſcription in Gothic letters, and another in the wall adjoining, with the armorial of the family of Sade. How incredible is the power of great talents, when employed in delineating paſſions common to the human race! How many millions of women, fair as Laura, have been beloved as tenderly—but wanting a Petrarch to illuſtrate the paſſion, have lived and died in oblivion! whilſt his lines, not written to die, conduct thouſands under the impulſe of feelings, which genius only can excite, to mingle in idea their melancholy ſighs with thoſe of the poet who conſecrated theſe remains to immortality! There is a monument of the brave Crillon in the ſame church; and I ſaw other churches and pictures—but Petrarch and Laura are predominant at Avignon. ——19 miles.

The 28th. Wait upon Pere Brouillony, provincial viſitor, who, with great politeneſs, procured me the information I wiſhed, by introducing me to ſome gentlemen converſant in agriculture. From the rock of the legate's palace, there is one of the fineſt views of the windings of the Rhone that is to be ſeen: it forms two conſiderable iſlands, which, with the reſt of the plain, richly watered, cultivated, and covered with mulberries, olives, and fruit-trees, hath an intereſting boundary in the mountains of Provence, Dauphiné and Languedoc.—The circular road fine. I was ſtruck with the reſemblance between the women here and in England. It did not at once occur in what it conſiſted; but it is their caps; they dreſs their heads quite different from the French women. A better particularity, is there being no wooden ſhoes here, nor, as I have ſeen, in Provence *. I have often complained of the ſtupid ignorance I met with at tables d'hôtes. Here, if poſſible, it has been worſe than common. The politeneſs of the French is proverbial, but it never could ariſe from the manners of the claſſes that frequent theſe tables. Not one time in forty will a foreigner, as ſuch, receive the leaſt mark of attention. The only political idea here is, that if the Engliſh ſhould attack France, they have a million of men in arms to receive them; and their ignorance ſeems to know no diſtinction between men in arms in their towns and villages, or in action without the kingdom. They conceive, as Sterne obſerves, much better than they combine: I put ſome queſtions to them, but in vain: I aſked, if the union of a ruſty firelock and a Burgeois made a ſoldier?—I aſked them in which of their wars they had wanted men? I demanded, whether they had ever felt any other want than that of money? and whether the converſion of a million of men into the bearers of muſquets would make money more plentiful? I aſked if perſonal ſervice were not a tax? And whether paying the tax of the ſervice of a million of men increaſed their faculties of paying other and more uſeful taxes? I begged them to inform me, if the regeneration of the kingdom, which had put arms in the hands of a million of mob, had rendered induſtry more productive, internal peace more ſecure, confidence more enlarged, or credit more ſtable? And laſtly, I aſſured them, that ſhould the Engliſh attack them at preſent, they would probably make the weakeſt figure they had done from the foundation of their monarchy: but, gentlemen, the Engliſh, in ſpite of the example you ſet them in the American war, will diſdain ſuch a conduct; they regret the conſtitution you are forming, becauſe they think it a bad one—but whatever you may eſtabliſh, you will have no interruption, but many good wiſhes from your neighbour. It was all in vain;

* We were, like you, ſtruck with the reſemblance of the women at Avignon to thoſe of England, but not for the reaſon you give; it appeared to us to originate from their complexions being naturally ſo much better than that of the other French women, more than their head-dreſs, which differs as much from ours as it does from the French. "Note by a female friend."

they

they were well perſuaded their government was the beſt in the world; that it was a monarchy, and no republic, for which I contended: and that the Engliſh thought ſo too, becauſe they would unqueſtionably aboliſh their houſe of lords, in the enjoyment of which accurate idea I left them.—In the evening to Lille, a town which has loſt its name in the world, in the more ſplendid fame of Vaucluſe. There can hardly be met with a richer, or better cultivated tract of ſixteen miles; the irrigation is ſuperb. Lille is moſt agreeably ſituated. On coming to the verge of it I found fine plantations of elms, with delicious ſtreams, bubbling over pebbles on either ſide; well dreſſed people were enjoying the evening at a ſpot, which I had conceived to be only a mountainous village. It was a ſort of fairy ſcene to me. Now, thought I, how deteſtable to leave all this fine wood and water, and enter a naſty, beggarly, walled, hot, ſtinking town, one of the contraſts moſt offenſive to my feelings? What an agreeable ſurpriſe, to find the inn without the town, in the midſt of the ſcenery I had admired! and more ſo, as it was cheap, and the accommodations good. I walked on the banks of this claſſic ſtream for an hour, with the moon gazing on the waters, that will run for ever in melliſluous poetry: retired to ſup on the moſt exquiſite trout and craw fiſh in the world. To-morrow to the famed origin.——16 miles.

The 29th. I am delighted with the environs of Lille; beautiful roads, well planted, ſurround and paſs off in different directions, as if from a capital town, umbrageous enough to form promenades againſt a hot ſun, and the river is divided into ſo many ſtreams, and conducted with ſo much attention, that it has a delicious effect, eſpecially to an eye that recogniſes all the fertility of irrigation. To the fountain of Vaucluſe, which is juſtly ſaid to be as celebrated almoſt as that of Helicon. Croſſing a plain, which is not ſo beautiful as one's idea of Tempe; the mountain preſents an almoſt perpendicular rock, at the foot of which is an immenſe and very fine cavern, half filled with a pool of ſtagnant, but clear water; this is the famous fountain; at other ſeaſons it fills the whole cavern, and boils over in a vaſt ſtream among rocks; its bed now marked by vegetation. At preſent the water guſhes out two hundred yards lower down, from beneath maſſes of rock, and in a very ſmall diſtance forms a conſiderable river, which almoſt immediately receives deviations by art for mills and irrigation. On the ſummit of a rock above the village, but much below the mountain, is a ruin, called, by the poor people here, the chateau of Petrarch—who tell you it was inhabited by Monſ. Petrarch and Madame Laura. The ſcene is ſublime; but what renders it truly intereſting to our feelings, is the celebrity which great talents have given it. The power of rocks, and water, and mountains, even in their boldeſt features, to arreſt attention, and fill the boſom with ſenſations that baniſh the inſipid feelings of common life—holds not of inanimate nature. To give energy to ſuch ſenſations, it muſt receive animation from the creative touch of a vivid fancy: deſcribed by the poet, or connected with the reſidence, actions, purſuits, or paſſions of great geniuſes; it lives, as it were, perſonified by talents, and commands the intereſt that breathes around whatever is conſecrated by fame. To Orgon. Quit the Pope's territory, by croſſing the Durance; there view the ſkeleton of the navigation of Boiſgelin, the work of the archbiſhop of Aix, a noble project, and, where finiſhed, perfectly well executed; a hill is pierced by it for a quarter of a mile, a work that rivals the greateſt ſimilar exertions. It has, however, ſtood ſtill many years for want of money. The vent de bize gone, and the heat increaſed, the wind now S. W., my health better to a moment, which proves how pernicious that wind is, even in Auguſt.——20 miles.

The 30th. I forgot to obſerve that, for a few days paſt, I have been peſtered with all the mob of the country ſhooting: one would think that every ruſty gun in Provence is

at

at work, killing all ſorts of birds; the ſhot has fallen five or ſix times in my chaiſe and about my ears. The National Aſſembly have declared that every man has a right to kill game on his own land; and advancing this maxim ſo abſurd as a declaration, though ſo wiſe as a law, without any ſtatute or proviſion to ſecure the right of the game to the poſſeſſor of the ſoil, according to the tenor of the vote, have, as I am every where informed, filled all the fields of France with ſportſmen to a great detriment. The ſame effects have flowed from declarations of right relative to tythes, taxes, feudal rights, &c. In the declarations, conditions and compenſations are talked of; but an unruly, ungovernable multitude ſeize the benefit of the abolition, and laugh at the obligations or recompenſe. Out by day break for Salon, in order to view the Crau, one of the moſt ſingular diſtricts in France for its ſoil, or rather want of ſoil; being apparently a region of ſea flints, yet feeding great herds of ſheep: view the improvement of Monſieur Paſquali, who is doing great things, but roughly: I wiſhed to ſee and converſe with him, but unfortunately he was abſent from Salon. At night to St. Canta.——46 miles.

The 31ſt. To Aix. Many houſes without glaſs windows. The women with men's hats, and no wooden ſhoes. At Aix waited on Monſ. Gibelin, celebrated for his tranſlations of the works of Dr. Prieſtley, and of the Philoſophical Tranſactions. He received me with that eaſy and agreeable politeneſs natural to his character. He took every method in his power to procure me the information I wanted, and engaged to go with me the next day to Tour D'Aigues to wait on the baron of that name, preſident of the parliament of Aix, to whom alſo I had letters; and whoſe eſſays, in the Trimeſtres of the Paris Society of Agriculture, are among the moſt valuable on rural œconomics in that work.——12 miles.

September 1ſt. Tour d'Aigues is twenty miles north of Aix, on the other ſide of the Durance, which we croſſed at a ferry. The country about the chateau is bold and hilly, and ſwells in four or five miles into rocky mountains. The preſident received me in a very friendly manner, with a ſimplicity of manners that gives a dignity to his character, void of affectation; he is very fond of agriculture and planting. The afternoon was paſſed in viewing his home-farm, and his noble woods, which are uncommon in this naked province. The chateau of Tour d'Aigues, before much of it was accidentally conſumed by fire, muſt have been one of the moſt conſiderable in France; but at preſent a melancholy ſpectacle is left. The baron is an enormous ſufferer by the revolution; a great extent of country, which belonged in abſolute right to his anceſtors, was formerly granted for quit-rents, cens, and other feudal payments, ſo that there is no compariſon between the lands retained and theſe thus granted by his family. The loſs of the droits honorifiques is much more than has been apparent, as it is an utter loſs of all influence; it was natural to look for ſome plain and ſimple mode of compenſation; but the declaration of the National Aſſembly allows none; and it is feelingly known in this chateau, that the ſolid payments which the Aſſembly have declared to be rachetable are every hour falling to nothing, without a ſhadow of recompenſe. The people are in arms, and at this moment very unquiet. The ſituation of the nobility in this country is pitiable; they are under apprehenſions that nothing will be left them, but ſimply ſuch houſes as the mob allows to ſtand unburnt; that the metayers will retain their farms without paying the landlord his half of the produce; and that, in caſe of ſuch a refuſal, there is actually neither law nor authority in the country to prevent it. Here is, however, in this houſe, a large and an agreeable ſociety, and cheerful to a miracle, conſidering the times, and what ſuch a great baron is loſing, who has inherited from his anceſtors, immenſe poſſeſſions, now frittering to nothing by the revolution. This chateau, ſplendid even in ruins, the venerable woods, park, and all the enſigns of family and command

command, with the fortune, and even the lives of the owners at the mercy of [illegible] rabble. What a ſpectacle! The baron has a very fine and well filled library, and one part of it totally with books and tracts on agriculture, in all the languages of Europe. His collection of theſe is nearly as numerous as my own.——20 miles.

The 2d. Monſ. Le Preſident dedicated this day for an excurſion to his mountain-farm, five miles off, where he has a great range, and one of the fineſt lakes in Provence, two thouſand toiſes round, and forty feet deep. Directly from it riſes a fine mountain, conſiſting of a maſs of ſhell agglutinated into ſtone; it is a pity this hill is not planted, as the water wants the immediate accompaniment of wood. Carp riſe to 25lb. and eels to 12lb. (Note, there are carp in the lake Bourgeat, in Savoy, of 60lb.) A neighbouring gentleman, Monſ. Jouvent, well acquainted with the agriculture of this country, accompanied us, and ſpent the reſt of the day at the caſtle. I had much valuable information from the Baron de Tour d'Aigues, this gentleman, and from Monſ. l'Abbé de ———, I forget his name. In the evening I had ſome converſation on houſe-keeping with one of the ladies, and found, among other articles, that the wages of a gardener are 300 livres (13l. 12s. 6d.); a common man ſervant, 150 livres (7l.); a Bourgeois cook, 75 to 90 livres (90 livres are 3l. 18s. 9d.); a houſe-maid, 60 to 70 livres (3l. 1s. 3d.) Rent of a good houſe for a Bourgeois 700 or 800 livres (35l.)——10 miles.

The 3d. Took my leave of Monſ. Tour d'Aigues' hoſpitable chateau, and returned with Monſ. Gibelin to Aix.——20 miles.

The 4th. The country to Marſeilles is all mountainous, but much cultivated with vines and olives; it is, however, naked and unintereſting; and much of the road is left in a ſcandalous condition for one of the greateſt in France, not wide enough, at places, for two carriages to paſs with convenience. What a deceiving painter is the imagination!——I had read I know not what lying exaggerations of the baſtides about Marſeilles being counted not by hundreds, but by thouſands, with anecdotes of Louis XIV. adding one to the number by a citadel. I have ſeen other towns in France, where they are more numerous: and the environs of Montpellier, without external commerce, are as highly decorated as thoſe of Marſeilles; yet Montpellier is not ſingular. The view of Marſeilles, in the approach, is not ſtriking. It is well built in the new quarter, but, like all others, in the old, cloſe, ill built, and dirty; the population, if we may judge from the throng in the ſtreets, is very great; I have met with none that exceeds it in this reſpect. I went in the evening to the theatre, which is new, but not ſtriking; and not in any reſpect to be named with that of Bourdeaux, or even Nantes; nor is the general magnificence of the town at all equal to Bourdeaux; the new buildings are neither ſo extenſive, nor ſo good—the number of ſhips in the port not to be compared, and the port itſelf is a horſe-pond, compared with the Garonne.——20 miles.

The 5th. Marſeilles is abſolutely exempt from the reproaches I have ſo often caſt on others for want of newſpapers. I breakfaſted at the Café d'Acajon amidſt many. Deliver my letters, and receive information concerning commerce; but I am diſappointed of one I expected for Monſ. l'Abbé Raynal, the celebrated author. At the table d'hôte, the Count de Mirabeau, both here and at Aix, a topic of converſation; I expected to have found him more popular, from the extravagancies committed in his favour in Provence and at Marſeilles; they conſider him merely as a politician of great abilities, whoſe principles are favourable to theirs; as to his private character, they think they have nothing to do with it; and aſſert, that they had much rather truſt to a rogue of abilities, than put any confidence in an honeſt man of no talents; not, however, meaning to aſſert, that Monſ. de Mirabeau deſerved any ſuch appellation. They ſay he has

Costume of the South of France.

an eſtate in Provence. I obſerved, that I was glad to hear he had property: for in ſuch revolutions, it was a neceſſary hold on a man, that he will not drive every thing to confuſion, in order to poſſeſs a conſequence and importance which cannot attend him in peaceable and quiet times. But to be at Marſeilles without ſeeing Abbé Raynal, one of the undoubted precurſors of the preſent revolution in France, would be mortifying. Having no time to wait longer for letters, I took the reſolution to introduce myſelf. He was at the houſe of his friend Monſ. Bertrand. I told the Abbé my ſituation: and with that eaſe and politeneſs which flows from a man's knowledge of the world, he replied, that he was always happy to be of uſe to any gentleman of my nation; and, turning to his friend, ſaid, here alſo is one, Sir, who loves the Engliſh, and underſtands their language. In converſing on agriculture, which I had mentioned as the object of my journey, they both expreſſed their ſurpriſe to find, by accounts apparently authentic, that we imported great quantities of wheat, inſtead of exporting as we formerly did; and deſired to know, if this were really the caſe, to what it was to be aſcribed: and recurring, at the ſame time, to the Mercure de France for a ſtatement of the export and import of corn, they read it as a quotation from Mr. Arthur Young. This gave me the opportunity of ſaying, that I was the perſon, and it proved a lucky introduction; for it was not poſſible to be received with more politeneſs, or with more offers of ſervice and aſſiſtance. I explained, that the change had taken place in conſequence of a vaſt increaſe of population, a cauſe ſtill increaſing more rapidly than ever.—We had an intereſting converſation on the agriculture of France, and on the preſent ſituation of affairs, which they both think going on badly; are convinced of the neceſſity of an upper houſe in the legiſlature, and dread nothing more than a mere democratical government, which they deem a ſpecies of republic, ridiculous for ſuch a kingdom as France. I ſaid that I had often reflected with amazement, that Monſieur Necker did not aſſemble the ſtates in ſuch a form, and under ſuch regulations, as would have naturally led to adopt the conſtitution of England, free from the few faults which time has diſcovered in it. On which Monſ. Bertrand gave me a pamphlet he had publiſhed, addreſſed to his friend Abbé Raynal, propoſing ſeveral circumſtances in the Engliſh conſtitution to be adopted in that of France. Monſ. l'Abbé Raynal remarked, that the American revolution had brought the French one in its train: I obſerved, that if the reſult in France ſhould be liberty, that revolution had proved a bleſſing to the world, but much more ſo to England than to America. This they both thought ſuch a paradox, that I explained it by remarking, that I believed the proſperity which England had enjoyed ſince the peace, not only much exceeded that of any other ſimilar period, but alſo that of any other country, in any period ſince the eſtabliſhment of the European monarchies: a fact that was ſupported by the increaſe of population, of conſumption, of induſtry, of navigation, ſhipping, and ſailors: by the augmentation and improvement of agriculture, manufactures, and commerce; and in a peculiar maſs and aggregate, flowing from the whole, the riſing eaſe and felicity of the people. I mentioned the authentic documents and public regiſters which ſupported ſuch a repreſentation; and I found, that Abbé Raynal, who attended cloſely to what I ſaid, had not ſeen or heard of theſe circumſtances, in which he is not ſingular, for I have not met with a ſingle perſon in France acquainted with them; yet they unqueſtionably form one of the moſt remarkable and ſingular experiments in the ſcience of politics that the world has ſeen; for a people to loſe an empire—thirteen provinces, and to gain, by that loſs, an increaſe of wealth, felicity, and power! When will the obvious concluſions, to be drawn from that prodigious event, be adopted? that all tranſmarine or diſtant domi-

nions, are ſources of weakneſs: and that to renounce them would be wiſdom. Apply this in France to St. Domingo, in Spain to Peru, or in England to Bengal, and mark the ideas and the replies that are excited. I have no doubt, however, of the fact. I complimented him on his generous gift to the ſociety of agriculture at Paris, of 1200 livres for a premium; he ſaid they had thanked him, not in the uſual form, by the ſecretary ſigning alone, but had every one preſent ſigned it. He ſaid, that he ſhould do the ſame by the academies of ſciences and belles lettres; and he has given the ſame ſum to the academies at Marſeilles, for a premium relative to their commerce. He ſaid alſo, that he had formed a plan he ſhould execute when he has ſaved money enough, which is to expend, by means of the ſociety of agriculture, 1200 livres a year in purchaſing models of all the uſeful implements of huſbandry to be found in other countries, eſpecially in England, and to ſpread them over France. The idea is an excellent one, and merits great praiſe; yet it is to be queſtioned, whether the effect would anſwer the expence. Give the tool itſelf to a farmer, and he will not know how to uſe it, or will be too much prejudiced to like it; a model he will ſtill leſs take trouble to copy. Gentlemen farming every where their own lands, with enthuſiaſm and paſſion for the art, would apply and uſe thoſe models; but I fear that none ſuch are to be found in France. The ſpirit and purſuits of gentlemen muſt be changed from their preſent frivolous turns, before any ſuch thing could be effected. He approved of my recommending turnips and potatoes; but ſaid, that good ſorts were wanted; and mentioned a trial he had made himſelf, a compariſon of the Engliſh and Provençal potatoes in making bread, and the Engliſh produced one-third more flour than the French. —Among other cauſes of bad huſbandry in France, he named the illegality of uſury; at preſent moneyed people in the country locked it up, inſtead of lending it for improvement. Theſe ſentiments of a juſtly celebrated writer do him honour; and it was pleaſing to me to find, that he gave attention to objects which have almoſt monopolized mine; and yet more ſo to find, that though not young, he is in good ſpirits; and likely to live many years to enlighten the world by the productions of a pen that has never been employed but for the benefit of the human ſpecies.

The 8th. To Cuges. For three or four miles the road leads through rows of baſtides and walls; it is made of powdered white ſtone, and without exception, the moſt duſty I ever ſaw; the vines, for twenty rods on each ſide, were like a dreſſed head; the country all mountains of rock, with poor pines.—Unintereſting and ugly; the plains, of no great breadth, are covered with vines and olives. Meet capers firſt at Cuges. At Aubagne, I dined on ſix diſhes, not bad, a deſert, and a bottle of wine, for 24s. and by myſelf too, for there was no table d'hôte. What Monſ. Dutens could mean by calling the poſt houſe at Cuges a good auberge, is inexplicable; it is a miſerable hole, in which I have one of the beſt rooms, without glaſs to the windows.——21 miles.

The 9th. The country to Toulon is more intereſting; the mountains are bolder; the ſea adds to the view; and there is one paſſage among the rocks, where are ſublime features. Nine-tenths are waſte mountain, and a wretched country of pines, box, and miſerable aromatics, in ſpite of the climate. Near Toulon, eſpecially at Olioules, there are pomegranates in the hedges, with fruit as large as nonpareils; they have a few oranges alſo. The baſon of Toulon with ranges of three deckers, and other large men of war, with a quay of life and buſineſs, are fine. The town has nothing that deſerves deſcription; the great and only thing that is worth ſeeing, the dock-yard, I could not ſee, yet I had letters; but the regulation forbidding it, as at Breſt, all applications were vain.——25 miles.

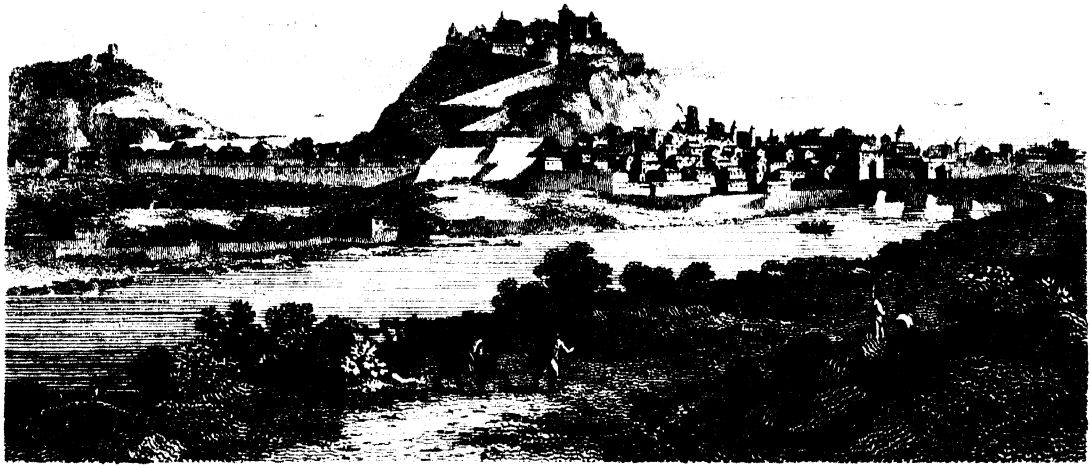
The-

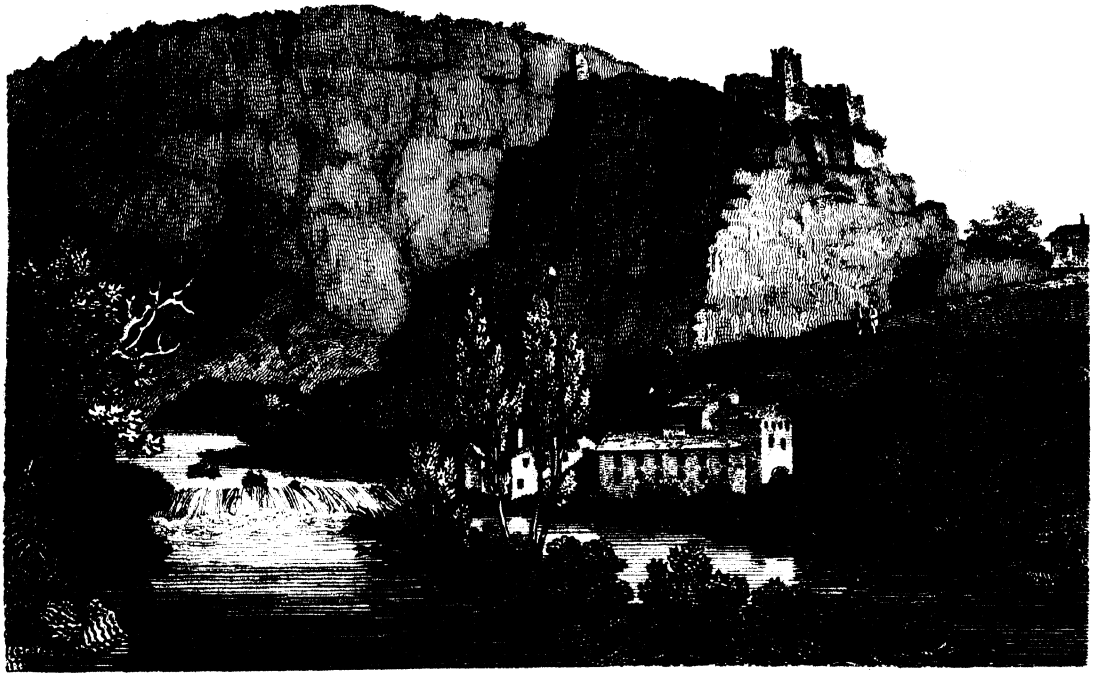
The 10th. Lady Craven has ſent me upon a wild chaſe to Hyeres—one would think this country, from her's and many other deſcriptions, was all a garden; but it has been praiſed much beyond its merit. The vale is every where richly cultivated, and planted with olives and vines, with a mixture of ſome mulberries, figs, and other fruit trees. The hills are either rocks, or ſpread with a poor vegetation of evergreens, pines, lentiſcus, &c. The vale, though ſcattered with white baſtides which animate the ſcene, yet betrays that poverty in the robe of nature, which always offends the eye where olives and fruits form the principal cloathing. Every view is meagre, on compariſon with the rich foliage of our northern foreſts. The only ſingular features are the orange and lemon trees; they here thrive in the open air, are of a great ſize, and render every garden intereſting to thoſe who travel to the ſouth; but laſt winter's froſt has ſhorn them of their glory. They are all ſo nearly deſtroyed as to be cut almoſt to the root, or to the trunk, but are in general ſhooting again. I conjecture that theſe trees, even when in health and foliage, however they may be ſeparately taken, add but little to the general effect of a view. They are all in gardens, mixed with walls and houſes, and conſequently loſe much beauty as the part of a landſcape. Lady Craven's tour ſent me to the chapel of Notre Dame de conſolation, and to the hills leading to Monſ. Glapiere de St. Tropes; and I aſked for father Laurent, who was, however, very little ſenſible of the honour ſhe had done him. The views from the hills on both ſides of the town are moderate. The iſlands Portecroix, Pourcurolle, and Levant, (the neareſt joined to the continent by a cauſeway and ſalt-marſh, which they call a pond,) the hills, mounts, rocks, all are naked. The pines that ſpread on ſome of them have not a much better effect than gorſe. The verdure of the vale is hurt by the hue of the olives. There is a fine outline to the views; but for a climate, where vegetation is the chief glory, it is poor and meagre; and does not refreſh the imagination with the idea of a thick ſhade againſt the rays of an ardent ſun. I can hear of no cotton in Provence, which has been reported in ſeveral books; but the date and piſtachio ſucceed: the myrtle is indigenous every where, and the jaſminum, commune, and fruticans. In l'Iſle de Levant is the geniſta candeſcens, and the teucrium herba poma. Returning from my ride to the hotel de Necker, the landlord worried me with a liſt of Engliſh that paſs the winter at Hyeres; there are many houſes built for letting, from two to ſix louis a month, including all the furniture, linen, neceſſary plate, &c. Moſt of theſe houſes command the proſpect of the vale and the ſea; and if they do not feel the vent de bize, I ſhould ſuppoſe it muſt be a fine winter climate. In December, January, and February perhaps it may not incommode them, but does it not in March and April? There is a table d'hôte, very well ſerved, at the hotel de Necker in winter, at 4 livres a-head each meal. View the King's garden here, which may be ten or twelve acres, and nobly productive in all the fruits of the climate, its crop of oranges only laſt year was 21,000 livres (918l. 15s.) Oranges at Hyeres have produced as far as two louis each tree. Dine with Monſ. de St. Ceſaire, who has a pretty new built houſe, a noble garden walled in, and an eſtate around it, which he would ſell or let. He was ſo obliging as to give me, with Dr. Battaile, much uſeful information concerning the agriculture and produce of this country. In the evening return to Toulon.——34 miles.

The 11th. The arrangement of my journey in Italy occupied ſome attention. I had been often informed, and by men that have travelled much in Italy, that I muſt not think of going thither with my one-horſe chaiſe. To watch my horſe being fed would, they aſſured me, take up abundantly too much time, and if it were omitted, with reſpect to hay, as well as oats, both would be equally ſtolen. There are alſo

plants that were in bloſſom, and meeting a woman with an aſs-load of grapes, I aſked her employment; and found, by help of an interpreter, that ſhe carried grapes from vineyards for hire. I propoſed loading her aſs to Eſtrelles with my baggage—and demanded her price.—40 ſols. I will give it. Break of day appointed; and I returned to the inn, at leaſt an œconomiſt, ſaving 10 livres by my walk.

The 25th. Myſelf, my female, and her aſs jogged merrily over the mountains; the only misfortune was, we did not know one word of each other's language; I could juſt diſcover that ſhe had a huſband and three children. I tried to know if he were a good huſband, and if ſhe loved him very much; but our language failed in ſuch explanations;——it was no matter; her aſs was to do my buſineſs and not her tongue. At Eſtrelles I took poſt horſes; it is a ſingle houſe, and no women with aſſes to be had, or I ſhould have preferred them. It is not eaſy for me to deſcribe, how agreeable a walk of ten or fifteen miles is to a man who walks well, after ſitting a thouſand in a carriage. To-day's journey all through the ſame bad country, mountain beyond mountain, incumbered with worthleſs evergreens, and not one mile in twenty cultivated. The only relief is the gardens at Graſſe, where ſingular exertions are made. Roſes are a great article for the famous otter, all of which is commonly ſuppoſed to come from Bengal. They ſay that fifteen hundred flowers go to a ſingle drop; twenty flowers ſell for one ſol, and an ounce of the otter 400 livres (17l. 10s.). Tuberoſes, &c. are alſo cultivated for perfumes in immenſe quantities, for Paris and London. Roſemary, lavender, bergamot, and oranges, are here capital articles of culture. Half Europe is ſupplied with eſſences from hence. Cannes is prettily ſituated, cloſe on the ſhore with the iſles of St. Marguerite, where is a deteſtable ſtate priſon, about two miles off, and a diſtant boundary of the Eſtrelles mountains, with a bold broken outline. Theſe mountains are barren to exceſs. At all the villages ſince Toulon, at Frejus, Eſtrelles, &c. I aſked for milk, but no ſuch thing to be had, not even of goats or ſheep; the cows are all in the higher mountains; and as to butter, the landlord at Eſtrelles told me, it was a contraband commodity that came from Nice. Good heaven!—what an idea northern people have, like myſelf, before I knew better, of a fine ſun and a delicious climate, as it is called, that gives myrtles, oranges, lemons, pomegranates, jaſmins, and aloes, in the hedges; yet are ſuch countries, if irrigation be wanted, the vereſt deſerts in the world! On the moſt miſerable tracts of our heaths and moors, you will find butter, milk, and cream; give me that which will feed a cow, and let oranges remain in Provence. The fault, however, is in the people more than the climate; and as the people have never any faults (till they become the maſters), all is the effect of government. The arbutus, lauruſtinus, ciſtus, and Spaniſh broom, are found ſcattered about the waſtes. Nobody in the inn but a merchant of Bourdeaux returning home from Italy; we ſupped together, and had a good deal of converſation, not unintereſting; he was melancholy to think, he ſaid, what a ſad reputation the French revolution has wherever he has been in Italy. Unhappy France! was his frequent ejaculation. He made many inquiries of me, and ſaid, his letters confirmed my accounts; the Italians ſeemed all convinced that the rivalry of France and England was at an end, and that the Engliſh would now have it in their power amply to revenge the American war, by ſeizing St. Domingo, and indeed all the poſſeſſions the French have out of France itſelf. I ſaid the idea was a pernicious one, and ſo contrary to the perſonal intereſts of the men who governed England, that it was not to be thought of. He replied, that if we did not do it, we ſhould be marvellouſly forbearing, and ſet an example of political purity ſufficient to eternize that part of our national character, in which the world thought us moſt deficient, moderation. He complained bitterly of the





the conduct of certain leaders of the National Aſſembly, who ſeemed to be determined on a bankruptcy, and perhaps a civil war.——22 miles.

The 16th. At Cannes I was quite without a choice; no poſt-houſe, carriage, nor horſes, nor mules to let; I was therefore forced again to take refuge in a woman and her aſs. At five in the morning I walked to Antibes. This line of nine miles is chiefly cultivated, but the mountains riſe ſo immediately, that, in a general idea, all is waſte. Antibes, being a frontier town, is regularly fortified; the mole is pretty, and the view from it pleaſing. Take a poſt-chaiſe to Nice; croſs the Var, and bid adieu for the preſent to France. The approach to Nice is pleaſing. The firſt approach to that country ſo long and juſtly celebrated, that has produced thoſe who have conquered, and thoſe who have decorated the world, fills the boſom with too many throbbing feelings to permit a buſh, a ſtone, a clod to be unintereſting. Our percipient faculties are expanded; we wiſh to enjoy; and then all is attention, and willingneſs to be pleaſed. The approach marks a flouriſhing town; new buildings, the never-failing proof of proſperity are numerous. Paſs many gardens full of oranges. Arrive in time for dinner at the table d'hôte, Hotel de Quatre Nations, and agree with the maſter of it for my apartment, which is exceedingly good, and dinner and ſupper at five Piedmonteſe livres a-day, that is five ſhillings. Here I am, then, in the midſt of another people, language, ſovereignty, and country—one of the moments of a man's life that will always be intereſting, becauſe all the ſprings of curioſity and attention are on the ſtretch. Several Frenchmen, but more Italians, at the table d'hôte; and the French revolution only talked of. The Frenchmen all in favour of it, and the Italians all againſt it, and abſolute victors in the argument.——25 miles.

The 17th. I have no letters for Nice; and therefore, knowing nothing of the inſides of the houſes, I muſt be content with what meets the eye. The new part of the town is very well built; the ſtreets ſtrait and broad. The ſea-view is fine, and for enjoying it in greater perfection, they have an admirable contrivance, which I have ſeen no where elſe. A row of low houſes forming one ſide of a ſtreet, a quarter of a mile long, has flat roofs, which are covered with a ſtucco floor, forming a noble terrace, open immediately to the ſea, raiſed above the dirt and annoyance of a ſtreet, and equally free from the ſand and ſhingle of a beach. At one end ſome finely ſituated lodging-houſes. The walk this terrace affords is, in fine weather, delicious. The ſquare is handſome, and the works which form the port are well built, but it is ſmall and difficult to enter, except in favourable weather; admits ſhips of near three hundred tons; yet, though free, has but an inconſiderable trade. The number of new ſtreets and houſes building at preſent is an unequivocal proof that the place is flouriſhing, chiefly on the account of the reſort of foreigners, principally Engliſh, who paſs the winter here, for the benefit and pleaſure of the climate. They are diſmally alarmed at preſent, with the news that the diſturbances in France will prevent many of the Engliſh from coming this winter; but they have ſome conſolation in expecting a great reſort of French. Laſt winter, there were fifty-ſeven Engliſh, and nine French; this winter, they think it will be nine Engliſh, and fifty-ſeven French. At the table d'hôte informed, that I muſt have a paſſport for travelling in Italy; and that the Engliſh conſul is the proper perſon to apply to. I went to Mr. Conſul Green, who informed me that it was a miſtake, there was no want of any paſſport; but if I wiſhed to have one, he would very readily give it. My name occurring to him, he took the opportunity to be very polite to me, and offered any thing in his power to aſſiſt me. On my telling him the object of my travels, he remarked, that the gardens here, and mixture of half garden and [redacted] ſingular, and if I called on him in the evening, he would walk

accepted his obliging invitation, and when I went again, met a Colonel Roſs, a gentleman from Scotland, ſecond in command in the King of Sardinia's marine, and at preſent in chief: having been much in Sardinia, I made ſome enquiries of him concerning that iſland, and the circumſtances he inſtanced were curious. The intemperia is ſo prevalent in ſummer, from the quantity of evaporating water leaving mud expoſed to the ſun, as to be death to a ſtranger: but in winter it is a good climate. The ſoil wonderfully rich and fertile, but vaſt plains that would produce any thing are uncultivated. He has paſt one line of fifty miles by thirty, all plain and the land good, yet without one houſe, and moſtly a neglected deſert. The people are wretched, and deplorably ignorant: there are diſtricts, he has been informed, where there are olives, and the fruit left rotting under the trees, for want of knowing how to make oil. In general, there are no roads, and no inns. When a traveller, or other perſon, goes into the iſland, he is recommended from convent to convent, or curé to curé, ſome of whom are at their eaſe; you are ſure to be well entertained, and at no other expence than a trifle to the ſervants. The plenty of game and wild-fowl great. The horſes are ſmall, but excellent; all ſtallions. One has been known to be rode four-and-twenty hours without drawing bit. I demanded to what could be attributed ſuch a neglected ſtate of the iſland? To government, I ſuppoſe? By no means; government has manifeſted every diſpoſition to ſet things on a better footing. It certainly ariſes from the feudal rights of the nobility, keeping the people in a ſtate of comparative ſlavery. They are too wretched to have the inducement to induſtry. Such is the caſe at preſent in many other countries beſides Sardinia. When I ſee and hear of the abominable depredations and enormities committed by the French peaſants, I deteſt the democratical principles; when I ſee or hear of ſuch waſtes as are found in Sardinia, I abhor the ariſtocratical ones. Accompany Mr. Green to view ſome gardens, which have a luxuriance of vegetation, by means of watering, that makes them objects worth attention; but the great product, and a moſt valuable one it is, are oranges and lemons; chiefly the former, and a few bergamots for curioſity. We examined the garden of a nobleman, ſomething under two acres of land, that produces thirty louis d'or a-year in oranges only, beſides all the crops of common vegetables. The great value of theſe products, ſuch is the perverſity of human life, is the exact reaſon why ſuch gardens would be deteſtable to me, if under the œconomical management of the gentry of Nice. An acre of garden forms an object of ſome conſequence in the income of a nobleman who, in point of fortune, is reckoned in good circumſtances, if he has 150l. to 200l. a year. Thus the garden, which with us is an object of pleaſure, is here one of œconomy and income, circumſtances that are incompatible. It is like a well furniſhed room in a man's houſe, which he lets to a lodger. They ſell their oranges ſo ſtrictly, that they cannot gather one to eat. A certain momentary and careleſs conſumption is a part of the convenience and agreeableneſs of a garden; a ſyſtem, which thus conſtrains the conſumption, deſtroys all the pleaſure. Oranges may certainly be ſold with as much propriety as corn or timber, but then let them grow at a diſtance from the houſe; that open apartment of a reſidence, which we call a garden, ſhould be free from the ſhackle of a contract, and the ſcene of pleaſure, not profit.

The 18th. Walked to Ville Franche, another little ſea-port of the King of Sardinia's, on the other ſide of the mountain, to the eaſt of Nice. Call on Mr. Green, the conſul, who has given me letters to Genoa, Alexandria, and Padoua: he has behaved with ſo friendly an attention, that I cannot omit acknowledging warmly his civilities. Learn this morning from him that Lord Briſtol is ſomewhere in Italy, and that Lady Erne is probably at Turin; my ſtars will not be propitious if I do not ſee them both.

The

The 19th. I have now waited two days merely for the means of getting away; I can go either by a felucca to Genoa, or with a vetturino to Turin; and there is ſo much for and againſt both ſchemes, that priority of departure is as good a motive for a preference as any other. If I go by Genoa to Milan, I ſee Genoa and a part of its territory, which is much, but I loſe ſixty miles of ſuperb irrigation, from Coni to Turin, and I loſe the line of country between Turin and Milan, which I am told is better than that between Genoa and Milan; as to Turin itſelf, I ſhould ſee it in my return. But here is Luigi Tonini, a vetturino, from Coni, who ſets out on Monday morning for Turin, which decides me; ſo with Mr. Green's kind aſſiſtance I have bargained with him to take me thither for ſeven French crowns. He has got two officers in the Sardinian ſervice, and is not to wait longer for filling the third place. We have every day, at the table d'hôte, a Florentine Abbé, who has been a wonderful traveller—no man names a country which he has not traverſed; and he is ſingular in never having made a note, making rather a boaſt that his memory retains every particular he would wiſh to know, even to numbers correctly. The height and meaſures of the pyramids of Egypt, of St. Peter's church at Rome, and St. Paul's at London, &c. with the exact length and breadth of every fine ſtreet in Europe, he has at his tongue's end. He is a great critic in the beauty of cities; and he claſſes the four fineſt in the world thus, 1. Rome.—2. Naples.—3. Venice.—4. London. Being a little inclined to the marvellous, in the idea of an old Piedmonteſe colonel, a knight of St. Maurice, a plain and unaffected character, and apparently a very worthy man; is piqued at the authority of Signore Abbate, to the amuſement of the company.

The 20th, Sunday. Mr. Conſul Green continues his friendly attentions to the laſt; I dined, by invitation, with him to-day; and, for the honour of Piedmonteſe grazing, ate as fine, ſweet, and fat a piece of roaſt beef as I would ever wiſh to do in England, and ſuch as would not be ſeen at the table d'hôte at the quatre nations in ſeven years—if in ſeven ages. An Engliſh maſter and miſtreſs of the table, with roaſt beef, plumb pudding, and porter, made me drop for a moment the idea of the formidable diſtance that ſeparated me from England. Unknown and unrecommended at Nice, I expected nothing but what could be ſhot flying in any town; but I found in Mr. Green, both hoſpitality, and ſomething too friendly to call politeneſs. In the evening we had another walk among gardens, and converſed with ſome of the proprietors on prices, products, &c. The deſcription Mr. Green gives me of the climate of Nice in the winter is the m[illegible] that can be imagined; a clear blue expanſe is conſtantly over head, and a [illegible] enough to be exhilarating, but not hot enough to be diſagreeable. But, Sir, the vent de bize! We are ſheltered from it by the mountains; and as a proof that this climate is by far more mild than where you have felt that wind, the oranges and lemons which we have in ſuch profuſion will not thrive either in Genoa or Provence, except in a very few ſpots, ſingularly ſheltered like this. He remarked, that Dr. Smollet, in his deſcription, has done great injuſtice to the climate, and even againſt the feelings of his own crazy conſtitution; for he never was ſo well after he left Nice as he had been at it, and made much intereſt with Lord Shelburne to be appointed conſul, who told him, and not without ſome foundation, that he would on no account be ſuch an enemy to a man of genius;—that he had libelled the climate of Nice ſo ſeverely, that if he were to go again thither the Niſſards would certainly knock him on the head. Mr. Green has ſeen hay made, and well made, at Chriſtmas.

The 21ſt. Commenced my firſt Italian journey; of my two military companions, one was as ſtupid as a brick-bat, and the other too lively for me:—there are few things more repugnant to my nerves than the vivacity of inanity; I am not young enough for it.

Here was alſo a friar, who made no compenſation for the deficiencies of his countrymen: —low, vulgar, and ignorant; could ſpeak no French, and but little Italian: I looked in vain for ſo many of his Piedmonteſe words in my dictionary, that I was ſoon tired of following him. We dined at Scareno, and ſlept at Soſpello, at both which places we joined the company of another vetturino, conſiſting of the Piedmonteſe colonel I had met at the table d'hôte, his brother an abbé, and another abbé a friend, all well bred polite men, who were very attentive to me as a foreigner, and had great readineſs to anſwer all my enquiries: I reaped a good deal of information from their converſation. The three firſt days of this journey are employed in croſſing three mountains; to-day we paſſed the Col de Pruſs. The features in the heights are intereſting, wild, and great. The deſcent to Soſpello is pictureſque ——26 miles.

The 22d. My friend, the old Piedmonteſe colonel, commends the Engliſh character greatly, when it is truly Engliſh; that is, as I gueſſed by his explanations, when it is not a hurrying, buſtling, expenſive young man of great fortune, againſt whom he threw out ſome ſevere reflections. He deſired my name, and where I lived in England, which he begged me to write down for him; and commended very much the object of my journey, which appeared ſo extraordinary to him, that he could not help putting many queſtions. The mountain we croſſed to-day is yet more ſavage than that of yeſterday; much of it wild and even ſublime. The little town of Saorgio and its caſtle are ſituated moſt romantically, ſtuck againſt the ſide of a mountain, like a ſwallow's neſt againſt the ſide of a houſe. I had no opportunity of aſking how many necks are broken in a year, in going peaceably to and fro; but the blackneſs of this town, and the total want of glaſs, make it gloomy as well as romantic; indeed the view of all theſe mountain-towns, where there may be ſo much happineſs with ſo little appearance of it, is forbidding. Tende, which is the capital of a diſtrict, and gives name to this great ridge of mountain (Col de Tende,) is a horrid place of this ſort, with a vile inn; all black, dirty, ſtinking, and no glaſs.——30 miles.

The 23d. Out by four in the morning, in the dark, in order to croſs the Col de Tende as ſoon after break of day as poſſible, a neceſſary precaution they ſay, as the wind is then moſt quiet; if there be any ſtorm, the paſſage is dangerous, and even impracticable; not ſo much from height as from ſituation, in a draught of wind between Piedmont and the ſea. The paſs in the rocks, for ſome diſtance before mounting the [illegible] ſublime; hemmed in among ſuch enormous mountains and rocks, that they reminded me a little of the amazing paſs in the Pyrenees, but are much inferior to it. In the face of one of them is a long inſcription to the honour of Victor Amadeus III. for taking the road; and near it an old one, purporting that the eleventh duke of Savoy made the old road, to connect Piedmont and Nice, à proprie ſpeſe con tutta diligenza. This old road is paſſable by mules only, and is that by which Mr. Dutens paſſed the Col e Tende. I ſhall obſerve once for all, that the new one is a moſt uſeful and princely undertaking. From within a few miles of Nice, where it is not finiſhed, to Limon coſt 500,000 livres, (175,000l.) It winds prodigiouſly, in order to paſs the ſteepeſt mountains, in ſuch angles as to admit carriages without difficulty. The worſt part is that which goes up to the Col de Tende; this has not been made with equal attention as the reſt, perhaps becauſe they have begun to execute a vaſt deſign of perforating the mountain. At preſent, notwithſtanding the goodneſs of the road in ſummer, it is abſolutely impaſſable in winter for carriages, and with difficulty ſometimes even with mules, by reaſon of the immenſe falls of ſnow. They have opened a cavern like a vault of rock, about thirty trebulchi long, and wide enough for carriages to paſs, but it ſoon divides into two paſſages, one for going and another for returning, which is found

found cheaper than one large enough for both; the whole will be above five hundred trebulchi, and will demand ſuch an expence as leaves little hope of ſeeing it executed in this century. Take the new road, however, for all in all, and it is a work that does honour to the king and country. Deſcend into the rich and beautiful vale of Piedmont, a few miles before Coni, and between the Alps and Appenines, which here ſeparate, one range running from hence to Calabria, I believe uninterruptedly, and the other to Conſtantinople. Amongſt the maps never made, but much wanted, is one of the mountains of Europe, to ſhew at one coup d'œil which are connected, and which ſeparate: this ſeparation of the Alps and Appenines is ſo narrow, that they would, on a map on any ſcale, appear as one range; they connect with all the mountains of France, by Dauphiné, Vivarais, and Auvergne, but not with the Pyrenees: I have myſelf travelled the whole range of thoſe from ſea to ſea. Quere, do they connect with Germany, Poland, &c.? Perhaps they may with thoſe of the hereditary dominions of the Houſe of Auſtria. This would make but two ranges of mountains on the continent of Europe, the Alps and the Pyrenees; for all the Spaniſh connect with the latter, unleſs thoſe of Norway and Sweden do not join the Ruſſian, Poliſh, &c. Reach Coni, which is ſtrongly fortified, and well ſituated; but as for inns, the Croce Bianca, which they ſpeak of as being excellent, afforded me a good room enough, but without a ſingle pane of glaſs in the windows, only ragged paper—and ſuch a commodité——let me drive the recollection from my memory! Here we loſt the company of the old colonel, his brother, and friend; they went five miles further, to the eſtate of one of them at Centelle. Sup at the table d'hote. Our landlady is a tall well looking virago; the officers made love to her with one hand, while they ſupped with the other. They then aſked me a thouſand queſtions about Engliſh duelling. Was it in a circle? At what diſtance? On horſeback? With what piſtols? &c.——37 miles.

The 24th. The friar and one of the officers proceeded no further; the other and myſelf for Turin. On leaving Coni, the view from the fortifications of the Alps is very fine; a range of them, capped with ſnow, is now ſeen by us to the left; Mont Viſo among them very high. At Centalle we were ſtopped by the ſervant of my friend, the colonel, who had orders to conduct us to the houſe of the curé, to take chocolate. The brother of the colonel is, it ſeems, curé and archiprêtre of the pariſh. It was impoſſible to be received with more kindneſs and hoſpitality than I was here. The colonel ſtarted a plan for keeping us to dinner, and his brother immediately begged we would change our intention of ſleeping at Carignan for Racconis, which would enable us to dine with him. To this we readily aſſented. I now found, that the colonel was the Chevalier Brun, on a viſit to his brother, who has built an excellent parſonage-houſe, as we ſhould call it, at his own expence, and has two curées under him as archiprêtre; he has arch-hoſpitality alſo; gave us an admirable dinner, well ſerved, and excellent wine, and wiſhed I would make a longer ſtay. As this was the firſt Italian houſe I had been in, except inns, it was intereſting enough to excite all my curioſity and attention. Expreſſing a wiſh to have ſome converſation with a practical cultivator, they had the goodneſs to walk with me to the Count de Bonifante, who lives on his own eſtate here, and farms it. I ſoon found that this nobleman loved the ſubject; for he ſeemed to take a pleaſure in anſwering my enquiries. We walked over his, and ſome of his neighbours' farms for more than two hours; and though my queſtions were pretty numerous, he was ſo kind as to meet them with the utmoſt willingneſs of explanation. If I have many ſuch days as this in Italy, I ſhall be equally well pleaſed and informed. Centalle was the reſidence of the Marquis de Suza. Take my leave of this agreeable and hoſpitable family, which I ſhall long remember with pleaſure. Paſs Savignan, a conſiderable and

pretty town; and what is much better to my eyes, a fine range of level plain, all rich and much watered. The ſcene in ſome places is charming: the road is like a fine alley, paſſing through a new mown garden; the meadows are as level as a die, without a mole-caſt, or ant-hill; thanks to watering! The mowing neat; the hay now cocking; rows of trees every where, and not being in ſtrait lines, the appearance is pleaſing. It is an obſervation I have more than once made, and it is no where ſo exemplified as in this country, that there are beauties reſulting from extreme fertility, that belong to a flat which would be hurt by inequalities of ſoil. The approach to Racconis is by a double row of trees on each ſide of the road, with two ſhady paths, very pleaſing even by moon-light; but my fellow-traveller, with his drawn ſword, ready to paſs at the breaſt of a robber, ſhould any attack us, did not people theſe ſhades with the moſt agreeable figures of the fancy. He ſays there are many robbers in Piedmont; and that travelling in the dark is always dangerous. Such things are to be laid to the account of government; and a pretty ſatire it is on deſpotiſm, not to be able to keep its roads clear from robbers. At Racconis, a great trade in winding ſilk: a beggarly inn—paper windows, &c.——27 miles.

The 25th. Purſuing our road, paſs a country ſeat of the Prince of Carignan, with a great incloſure of plantation, and many Lombardy poplars. Croſs the Po by a moſt commodious ferry; a platform on two boats; the coach drove on and off without our moving. Why have we not ſuch ferries in England? All a rich level country till we come near the mountain of Turin, and paſs the chateau of Moncaglia, the preſent reſidence of the Count d'Artois. Reach Turin; drive to the Hotel Royal; all full. To the hotel d'Angleterre; all taken for the Prince of Condé. To the Bonne Femme, where a good landlady received me. I was in time for the table d'hôte, at which were ſeveral French refugees, whoſe accounts of affairs in France are dreadful. Theſe were driven from their chateaus, ſome of which were in flames; it gave me an opportunity of enquiring by whom ſuch enormities were committed; by the peaſants, or wandering brigands? they ſaid by peaſants, undoubtedly; but that the great and indiſputable origin of moſt of thoſe villanies, was the ſettled plan and conduct of ſome leaders in the National Aſſembly, in union with, and by the money of, one other perſon of great rank, who would deſerve the eternal execrations and reproaches of all true Frenchmen and every honeſt man: that when the aſſembly had rejected the propoſal of the Count de Mirabeau, to addreſs the King to eſtabliſh the milice bourgeoiſe, couriers were ſoon after ſent to all quarters of the kingdom, to give an univerſal alarm of great troops of brigands being on the actual march, plundering and burning every where, at the inſtigation of ariſtocrats, and calling on the people to arm immediately in their own defence: that by intelligence afterwards received from different parts of the kingdom it was found, that theſe couriers muſt have been diſpatched from Paris at the ſame time *. Forged orders of the King in Council were likewiſe ſent, directing the people to burn the chateaus of the ariſtocratical party: and thus, as it were by magic, all France was armed at the ſame moment, and the peaſants inſtigated to commit the enormities which have ſince diſgraced the kingdom.——22 miles.

The 26th. This being the firſt Italian city of renown for beauty that I have ſeen, I have been all eyes to-day. Some travellers have repreſented it as the prettieſt town in Europe, and the Strada di Po the fineſt ſtreet. I hurried to it with eagerneſs. I was in the middle of it, aſking for it. Queſta, queſta! replied an officer, holding up his

* Afterwards at Paris this fact was confirmed to me.

hands,

hands, as if to point out an object of great beauty which I did not ſee, and in truth I ſaw it not. It is ſtrait and broad, and nearly regular. Two rows of brick barns might be ſo equally. The houſes are of an ugly obfuſcated brick; a few have ſtucco, and that old and dirty: the ſcaffold holes in the walls of all the reſt are left unfilled; ſome of them are enlarged by time, and ſeveral courſes of bricks between thoſe holes, not pointed, which has as bad an effect; the windows are narrow and poor; ſome with iron balconies, ſome without; the arcades, for there is a row on each ſide of the ſtreet, would alone be deſtructive of beauty: the arches are plaiſtered, which patches the line with white: and through them are exhibited nothing but poor ſhops that incumber their ſpans with all ſorts of lumber; the lamps are fifty or ſixty yards aſunder. In a word, there are fifty ſtreets at London to which this cannot be compared. If thoſe who have travelled in Italy think this ſtreet fine, what am I to meet with in other towns? The Strada della Dora Groſſa is by far a finer ſtreet than that of the Po, but the houſes are greatly too high. There is a beautiful arcade entrance to the herb-market, which ſeems to have furniſhed the idea of that at the new buildings of Somerſet-houſe. The ſtreets are almoſt all quite regular, and at right angles. I expected that this circumſtance would have been attended with much more beauty than it is. It gives too great a ſameneſs; the conſtant return of the ſame angles tires the eye; and I am convinced, that a city would be much more ſtriking, and more admired, that had varied lines inſtead of uniform ones. Circles, ſemi-circles, creſcents, ſemi-eliplſes, ſquares, ſemi-ſquares, and compounds, compoſed of theſe, mixed with the common oblongs, would give a greater air of grandeur and magnificence. The moſt ſplendid object I have ſeen at Turin is the ſtair-caſe and ſaloon in the chateau contiguous to the royal palace.—There is nothing at Verſailles, except the gallery, to be compared with it. The front of this edifice is fine, and the whole does honour to Juvara. This morning I ſhould have delivered my letters, but am unlucky. The Marcheſe de Palavicino, preſident of the Agrarian Society, and Signore Biſſatti, the ſecretary of it, are both in the country. Signore Capriata, the preſident en ſecond, I met with, but he is no practical farmer; he has been obliging enough, however, to promiſe me an introduction to ſome perſons who are converſant with agriculture. Meeting with theſe diſappointments, I began to fear I might want the intelligence that was neceſſary to my deſign; and be in that ineligible ſituation of ſeeing only the outſides of houſes, and knowing nothing of the perſons within. With time thus on my hands, I enquired for a bookſeller, and was directed to Signore Briolo, who prints the memoirs of all the learned bodies here; among others, thoſe of the Agrarian Society, which I bought, and afterwards turning over, found that I made a pretty conſpicuous figure in one written by the Cavaliere di Capra, colonel of the regiment of Tortona, on the ſize of farms. He is a bitter enemy to large ones; not content with ſtrictures on Piedmont, he preſſes England into his ſervice, and finds it neceſſary to refute me, as I appear in the tranſlation of Monſ. Freville, from which he quotes paſſages which I never wrote. I wiſhed to aſſure the author that it was the French tranſlator, and not the Engliſh farmer that he had refuted. I laughed very heartily with Signore Capriata at this adventure of the memoirs. In the evening to the opera; the theatre is a fine one, though not the principal; the houſe nearly full, yet all the world is in the country.

The 27th. The Cavaliere Capra having ſeen Signore Capriata, I this morning received a viſit from him: I was glad of an opportunity to remark to him that he had quoted paſſages erroneouſly from my Political Arithmetic. He ſaid, he was ſorry he ſhould miſunderſtand me; and beginning at once to declaim againſt great farms, I begged to remark, that my opinion was exactly the ſame at preſent as it had always

been

been, that the ſize of farms ſhould be left abſolutely free. He was violent againſt great ones in Piedmont, which he ſaid ruined and depopulated the country, as I ſhould find when I came among the rice-grounds in my way to Milan. Signore Capra was polite, tendered me every ſervice in his power, and expreſſed the utmoſt readineſs to aſſiſt my enquiries. Signore Briolo, as ſoon as he underſtood who I was, ſhewed me every attention in his power; and that I might have the benefit of converſing with ſuch perſons as he thought moſt ſuitable to my enquiries, he made known my arrival to Signore Fontana, a practical chemiſt and deputy ſecretary to the Agrarian Society; to Signore Gio. Piet. Mariadana, profeſſor of botany in the univerſity; to Signore il Dottore Buniva, his aſſiſtant, who travelled in France and England as a naturaliſt. From theſe gentlemen I had this morning a viſit, and an intereſting converſation on the preſent agricultural ſtate of Italy. To Signore Briolo I was alſo indebted for an introduction to Signore Giobert, academician, and of the Agrarian Society, who has gained a prize by a memoir on the quality of earths and manures. Viewed the King's palace, not ſo ſplendid as to raiſe diſagreeable emotions in the breaſt of a philoſophical ſpectator; and no marks of provinces having been oppreſſed to raiſe it. Of the pictures, which are numerous, thoſe which pleaſed me beſt, are a virgin, child, and St. John, by Lorenzo Sabattini; Apollo flaying Marſias, by Guido; a Venus, by Carlo Cignani; a ſick woman, by Gerard Dow; a virgin and child after Rapael, by Saſſa Ferrata. Vandyke ſhines greatly in this collection; there are the children of Charles I. finely done; a man and woman ſitting; but above all, Prince Tomaraſo di Carignano on horſeback, which for life and force of expreſſion is admirable. In the evening to the opera, and being Sunday the houſe was full. The Laſca Fiera; there is a pretty duet, between Contini and Gaſpara, in the firſt act.

The 28th. Walked to Moncaglia early in the morning. The palace is boldly ſituated on a hill, the Windſor of Piedmont:—commands noble views of the Po, and a rich ſcene of culture. After dinner, on horſe-back to Superga, the burying place of the royal family; where the bodies of theſe princes repoſe more magnificently than the Bourbons at St. Denis. The view from the tower is, I ſuppoſe, the fineſt farmer's proſpect in Europe. You look down on much the greater part of Piedmont as on a map, and the eye takes in Milan at eighty miles diſtance; the whole, with ſuch an horizon of mountains, as is no where elſe to be found,—for the enormous maſſes of ſnow, which the Alps preſent, are eaſier conceived than deſcribed.

The 29th. Signore Briolo was this morning my conductor to Gruliaſcho, to view the farm, by appointment of Signore Bracco, to whom Signore Capriata had ſpoken for that purpoſe; we walked by the nobly planted road that leads to Suza, and I was glad to find, that my Turin bookſeller was a farmer, though à la metà, and anſwered thoſe uſeful enquiries, which I have long found abundantly convenient, always to have ready arranged in my head, and adapted to the people into whoſe hands chance may throw me. We dined together at the village, in a villainous hole, much better adapted to offend the ſenſes than to gratify them. Our repaſt finiſhed, we ſallied forth to find Signore Bracco; he ſhewed us ſeveral watered meadows, and explained all the particulars; after which, coming to the houſe, lo! inſtead of a farmer or metayer, as I expected, I found a large houſe, in a ſtyle ſuperior to any farm one, and that he was a bailiff to a Signore, I do not know whom, jeweller to the King and court; an awkward explanation of this came on, and then I found this perſon knew of my coming two days before:—to mend the matter, after making us wait ſome time he ſhewed himſelf. I was preſſed to enter:—whether it were, that a hot walk, or a bad dinner had fretted me, or, in fine, that I did not like the jeweller's phyſiognomy, I know not, but I begged

ged to be excuſed, and perſiſted in my refuſal. A rich citizen at his country villa is to me a formidable animal. Had he ſaid he was a farmer, and would converſe on the ſubject, or any thing of that tendency, it had been otherwiſe; but I departed bruſqument, with a character, I believe, molto ſelvaggio. In the evening ſome beautiful paſſages in the Paſtorella Nobile brought me into better temper.

The 30th. The intendant Biſarti returned to Turin, and I had the pleaſure of a viſit from him; he carried me to the univerſity, and ſome other places which I had not ſeen before; Signore Capra alſo, and Dr. Buniva favoured me with their company. The knight, I find, is as complete a croaker as could ever iſſue from the ſchool of Dr. Price himſelf. Piedmont furniſhes an inſtance, which if I had touched upon to Signore Capra, he would have preſſed it into his ſervice on the queſtion of farms. But there are not many circumſtances more curious in politics, than the contraſt between great and ſmall dominions. Here is a court ſufficiently ſplendid; a palace well kept; an army (not equally well kept) of thirty thouſand men; fortifications many, and among the firſt in the world, and a power of receiving with hoſpitality and ſplendor the princes of the blood of France; all this is done with thirty millions of French money: if the compariſon had been made in the late king's reign, the circumſtances would have been ſtronger. The King of France had ſix hundred millions; that is to ſay, twenty times as much: he could, therefore, with equal proportions, have twenty ſuch palaces, or more exactly an hundred, as there are five in Piedmont; twenty ſuch courts, and an army of ſix hundred thouſand men. But inſtead of this, the difference between the palaces of the two Kings and their courts, their parade and their vanity, is not in the ratio of one-fourth of their revenue; and as to the army of the King of Sardinia (proportions preſerved), it is ſix times more powerful than that of the King of France: but the contraſt goes further; for, while the debts of this country are inconſiderable, thoſe of France are ſo great, that the deficit alone is more than five times the whole revenue of Sardinia.

October 1ſt. The political ſtate of Piedmont at preſent depends almoſt entirely on the perſonal character of the King, who is eſteemed an eaſy good natured man, too much impoſed on by a ſet of people without merit. The conſequence of which is, that talents and all ſorts of abilities, inſtead of being in the poſts for which they are qualified, are found only in retirement. I am told, that he often takes bank-notes in his pocket-book, and at night, if he have not given them away, expreſſes uneaſineſs; yet this is with an empty treaſury, and an incomplete ill-paid army. This conduct is remarkably different from that of the princes his Majeſty's predeceſſors, who, as all the world knows, were good œconomiſts, and kept themſelves ſo well prepared, that they were able to turn opportunities to their notable advantage, which muſt have paſſed barren of events under a different ſyſtem of government. The King's motives, however, are excellent, and no faults are found with his government that do not flow from that ſort of goodneſs of heart which better befits a private ſtation than a throne. Similar errors are not expected from the prince of Piedmont, who is repreſented as a man of good underſtanding, with, however, rather too great a tincture of religion. Nothing can be more regular and decent than the conduct of all the court; no licentious pleaſures are here countenanced; and very little that looks like diſſipation. How the Count d'Artois paſſes his time is not eaſy to conceive; for a prince who was dying with ennui in the midſt of Verſailles, for want of pleaſures that had not loſt their luſtre, one would ſuppoſe that of all the courts in Europe there was ſcarcely one to be found leſs adapted than this to his feelings, whatever it might be to his convenience.

The 2d. To Verceil, by a vetturino; I find but one agreeable circumſtance in this way of travelling, which is going as ſlow and ſtopping as often as you pleaſe: I walked moſt of the way, and generally out-walked the coach, except when there was any little deſcent. A gentleman, a proprietor and cultivator of rice near Verceil, ſupped with us who was communicative.——45 miles.

The 3d. To Novara much rice; ſome yet uncut; they are threſhing it every where, and we meet gleaners loaded with it; a naſty country, as ill to the eye as to the health: there hang the limbs of a robber in the trees, in uniſon with the ſombre and peſtiferous aſpect of a flat woody region. Croſs the Teſino, deep, clear, and rapid. This river parts the dominions of the King of Sardinia from thoſe of the Emperor. At Buffalora croſs the naviglio grande, the greateſt canal for irrigation that was ever made. Sleep at Magenta.——30 miles.

The 4th, Sunday. Reach Milan in the forenoon. This great city ſtands in the midſt of a dead level country, ſo thickly planted that you ſee nothing of it till you are in the ſtreets. To the Albergo del Pozzo, in time to wait on the Abbate Amoretti, ſecretary of the Patriotic Society, to whom I had letters from Monſieur de Brouſſonet and Signore Songa of London: I found the Abbate admirably well lodged, in the palazzo of the Marquis de Cuſani: this, ſaid I to myſelf, looks well, to find a man of letters in a ſplendid apartment, and not poked, like a piece of lumber, into a garret: it is a good feature in the Italian nobility. I entered his apartment, which is a cube of about thirty feet, from a great ſaloon of forty or fifty. He received me with eaſy and agreeable politeneſs, which impreſſes one at firſt ſight in his favour. Soon after he returned my viſit. I find him an agreeable, well-informed, and intereſting character. Waited alſo on the Abbate Oriani, aſtronomer royal, who expreſſed every wiſh to be of uſe to me. At night to the opera; a moſt noble theatre; the largeſt as well as handſomeſt I have ſeen; the ſcenes and decorations beautiful. Though it is Sunday, I look with amazement at the houſe, for it is three parts full, even while much of the world are in the country;—how can ſuch a town as Milan do this? Here are ſix rows of boxes, thirty-ſix in a row; the three beſt rows let at 40 louis d'or a box. This is marvellous for an inland town, without commerce or great manufactures. It is the plough alone that can do it. I am delighted with the accommodation of the pit; one ſits on broad eaſy ſophas, with a good ſpace to ſtir one's legs in: young perſons may bear being truſſed and pinioned on a row of narrow benches, but I am old and lazy, and if I do not ſit at my eaſe, would not care to ſit there at all.——10 miles.

The 5th. In the morning, deliver letters to Signore Bignami and Vaſſali, and the Meſſieurs Zappas, gentlemen in commerce, from whom I might receive information relative to the exports, &c. of the Milaneſe. At noon, to the Society of Agriculture (called the Patriotic Society), which fortunately for me, who am a member, had a meeting to-day: the Marcheſe di Viſconti in the chair, with ten or a dozen members preſent, to all of whom Signore Amoretti introduced me. I never expect much from ſocieties of this ſort; but this of Milan was to-day employed on a button and a pair of ſciſſors: it ſeems they want at this city to make the finer ſorts of hardware, in order to rival thoſe of England, and leſſen the import, which, in ſpite of every obſtacle is very great: the idea originates with the government, and is worthy of its little ideas; a true peddling ſpirit at preſent throughout Europe. An artiſt in the town had made a button and half a pair of ſciſſors, one half Engliſh, and the other half of his own manufacture, for which he claimed and had a reward. Similar are the employments of ſocieties every where! In England, buſied about rhubarb, ſilk, and drill-ploughs:—

at

at Paris, about fleas and butterflies;—and at Milan, about buttons and ſciſſors! I hope I ſhall find the Georgofili at Florence employed on a top-knot. I looked about to ſee a practical farmer enter the room, but looked in vain. A goodly company of *i Marcheſi, i Conti, i Cavalieri, i Abbati*, but not one cloſe clipped wig, or a dirty pair of breeches, to give authority to their proceedings. We met, in what was the Jeſuits' college, in the Brera, a noble building, containing many apartments equally ſplendid and convenient. The Marcheſe Viſconti aſked me to his country-ſeat; and the Cavaliere Caſtiglioni, who has travelled in America with the views of a natural hiſtorian, and who intends to print the journal of his voyage, hopes to meet me ſoon at his brother the Count's. Milan has been repreſented as very dear, and may be ſo when no thought is taken to ſave expence, ordering what you want, and leaving the bill to the hoſt; but as ſuch methods do not agree with my purſe, I pay by agreement, for my room, dinner and ſupper ſerved in it, as there are few tables d'hôtes in Italy, 6 livres of Milan a-day, or an ecu, equal to 4s. Engliſh. The pit at the opera, is 2 livres 5*ſ.* and coffee for breakfaſt 7*ſ.* in all about 5s. 8d. a-day; but ſeeing buildings, &c. adds ſomething. I am very well ſerved for this, except in ſoups, which are deteſtable, for I hate macaroni and abominate paſte. I have read ſo much of the horrors of Italian inns, that I am very agreeably ſurprized to find them in the great towns, Turin and Milan for inſtance, as good as in France; yet I am not at the beſt here,—for I underſtand the Alberghi Reale and Imperiale are the firſt; and I was not at the beſt at Turin. But village ones between the great towns are bad enough. In France, one is rarely waited on at inns by men; in Italy, hitherto never by women; I like the French cuſtom beſt. Ferret among the bookſellers, and find more tracts, in Italian, upon agriculture than I expected. At night to the opera; the pit is ſo commodious and agreeable, that it is a good lounge; the ſophas and chairs are numbered; they give you a ticket, which marks your ſeat; but the performers are poor. It was the Impreſario in Auguſta, by that beautiful compoſer, Cimaroſa; there is a quintetto in it, than which nothing could be more pleaſing, or repeated with more applauſe.

The 6th. Signore Amoretti, whoſe attentions and aſſiduity are ſuch as I ſhall not ſoon forget, this morning introduced me to Signore Beecken, a counſellor in the court of his Imperial Majeſty; and then we went together into the country, ſix or ſeven miles, to a farm in the road to Pavia, belonging to the Marquis Viſconti, to ſee the method of making the Lodeſan cheeſe; attended the whole operation, which is ſo totally different from what we uſe in England, that ſkill in making may have a great effect in rendering this product of Lombardy ſo ſuperior to all others. The cheeſe, and the enquiries, took up the whole day; ſo that it was five in the evening before we got back to Milan, where they dined with me at the pozzo; an itinerant band of muſic giving a ſerenade under the windows to the illuſtriſſimi, eccellentiſſimi, nobili Signori Ingleſi. This day has paſſed after my own heart, a long morning of activity, and then a dinner, without one word of converſation but on agriculture. Signore Beecken is a ſenſible well-informed German, who underſtands the importance of the plough; and Abbate Amoretti's converſation is that of a man who adds the powers of inſtruction to the graces that enliven company.

The 7th. Attended the Marquis de Viſconti, and Signore Amoretti to Mozzate, the country-ſeat of the Count de Caſtiglione, about ſixteen miles north of Milan. Stop very near the city to view the Chartreuſe, which, ſince the Emperor ſeized the revenues, and turned the monks out, has been converted into a powder magazine. View in paſſing, the fine church of Ro, and the Marquis of Litta's villa at Leinate, in which the gardens are conſpicuous. The Italian taſte was the undoubted origin of what

we ſee in France; but decoration is carried much higher. Marble baſons, with fine ſtatues, too good for the ſituation: jets d'eau, temples, colonades, and buildings, without end, almoſt connected with the houſe; latticed, and clipped bowers and walks; miles of clipped hedges—terraces and gravel walks, never well kept, with abundance of orange-trees, are the features; and they are all in profuſion. The expence enormous, both to form and to keep. There is a pinery, and not more than five or ſix others in the whole duchy of Milan. Reach Mozzate. The counteſs appeared what we call a genteel good ſort of woman, with nothing of that ſpecies of foppery and affectation that forms the fine lady. The moment I ſaw the Count de Caſtiglione, I was prejudiced in his favour; his phyſiognomy is pleaſing; and the inſtantaneous eaſy affability, mixed with great quickneſs and vivacity, tells one in a moment, that time would not be loſt in his company. I was not deceived. He entered preſently on the object of my travels; and I was highly pleaſed to find, that he was a practical farmer. After dinner, we made an excurſion to a conſiderable plantation he has executed with great judgment and ſpirit. The count ſhewed me a part of his farm alſo,—but this is not equally ſucceſsful. In the evening, while the reſt of the company were at cards, he ſatisfied my numerous enquiries concerning the huſbandry, &c. of the neighbourhood, in a manner that left me little to wiſh. After breakfaſt, the next morning I returned to Milan. The feature which ſtruck me moſt in this viſit to an Italian nobleman, at his country-ſeat, is the great ſimilarity of living, and of manners in different countries. There are few circumſtances in the table, attendance, houſe, and mode of living, that vary from a man of ſimilar rank and fortune in England or France. Only French cuſtoms, however, predominate. I ſuppoſe one muſt go for new manners to the Turks and Tartars; for Spain itſelf, among people of rank, has them not to give: and this circumſtance throws travellers, who regiſter their remarks, into a ſituation that ſhould meet with the candour of readers: thoſe who record faithfully, muſt note things that are common, and ſuch are not formed to gratify curioſity. Thoſe who deal much in adventures, ſo contrary to our own manners as to excite ſurpriſe, muſt be of queſtionable authority; for the ſimilarity of European manners, among people of rank or large fortune, can hardly be doubted: and the difference among their inferiors is, in many caſes, more apparent than real. I am much pleaſed with this family: the Counteſs is a good woman, for ſhe loves her children, her huſband, and the country. Her huſband has life, animation, quickneſs of conception, and that attention to agriculture, which made me wiſh him for a neighbour. In our return, ſtop at Deſio, the villa of the Marquis of Cuſino, which is in a ſtyle that pleaſes me. The houſe is not upon too great a ſcale, and therefore finiſhed and furniſhed: the rooms are more elegant than ſplendid—and more comfortable than ſhewy. There is one apartment, in encauſtic painting, ſaid to be the firſt executed in Italy. The ſecond floor contains thirteen bed-chambers, with each a ſmall ſervant's-room, and light cloſet: and they have all ſuch a comfortable, clean, Engliſh air; and are ſo neat, without any finery, that, had the floors been deal, inſtead of brick, I ſhould have thought myſelf in my own country. I have read travels that would make us believe, that a clean houſe is not to be met with in Italy; if that were once true, things are abundantly changed. I like this villa much better than the maſter does, for he is rarely here for a fortnight at a time, and that not often. The gardens are ſplendid in their kind; lattice-frames of lemons twenty feet high, with eſpaliers of oranges, both full hung with fruit, have, to northern eyes, an uncommon effect; but they are all covered with glaſs in the winter. Here is a pinery alſo. Dine in the village on trout, freſh from the lake of Como, at 3 livres the pound, of twenty-eight ounces. In the evening return to Milan, after an excurſion inſtructive in my princi-

pal object, and equally agreeable in the little circumſtances that have power ſufficient either to gild or ſhade every object. Paſs the houſe of the Marcheſa di Fagnani, who has been much in England, and celebrated here for being the lady with whom our inimitable Sterne had the recontre at Milan, which he has deſcribed ſo agreeably.——32 miles.

The 9th. This day was appointed for viſiting a few objects at Milan, for which Signore Beecken had the goodneſs to deſire to be my cicerone; his chariot was ready after breakfaſt, and we went from ſight to ſight till five o'clock. Buildings and pictures have been ſo often and ſo well deſcribed, that for modern travellers nothing is left, if they expatiate, but to talk of themſelves as much as of the objects. I ſhall note, in a few words, the things that ſtruck me moſt. I had read ſo much of the cathedral, and came to it with ſuch expectation, that its effect was nothing. There are comparative meaſurements given of it with St. Paul's and St. Peter's, that ſeem to rank it in the ſame claſs for magnitude: to the eye it is a child's play-thing compared to St. Paul's. Of the innumerable ſtatues, that of St. Laurence flayed is the fineſt. The architecture of the church of St. Fedele, by Pellegrino, is pleaſing; it contains ſix columns of granite; and there are other fine ones alſo in that of St. Aleſandro. But I found Padro Pini, profeſſor of natural hiſtory, a better object than his church; he has made a great and valuable collection of foſſils, and has taken the means neceſſary for ſelf-inſtruction, much travel, and much experiment. At St. Celſo, there are two ſtatues of Adam and Eve, by Lorenzi, that cannot be too much admired; and a Madonna, by Fontana. Here alſo are pictures by the two Procacinis, that will detain your ſteps. The great hoſpital is a vaſt building, once the palace of the Sforzas, Dukes of Milan, and given by Duke Francis for this uſe. It has a net revenue of a million of livres, and and has at preſent above one thouſand three hundred patients. At the Abbey of St. Ambroſe, built in the ninth century, and which has round arches, anterior to Gothic ones, they ſhewed us a MS. of Luitprandus, dated 721, and another of Lothaire, before Charlemagne. If they contained the regiſter of their ploughs, they would have been intereſting; but what to me are the records of gifts to convents for ſaving ſouls that wanted probably too much cleaning for all the ſcrubbing bruſhes of the monks to brighten? Unqueſtionably the moſt famous production of human genius at Milan is the laſt ſupper of Lionardo de Vinci, which ſhould be ſtudied by artiſts who underſtand its merit, as it is not a picture for thoſe who, with unlearned eyes, have only their feelings to direct them. View the Ambroſian library.

The 10th. The climate of Italy, I believe, is generally in extremes; it has rained almoſt inceſſantly for three days paſt, and to-day it pours. I have made a ſad blunder, I find more and more, in ſelling my French equipage; for the dependence on hiring and on the vetturini, is odious. I want to go to-morrow to Lodi, &c. and have loſt much time in finding a horſe and chaiſe; and after all can have only a miſerable thing, at 7½ livres a day.—In the evening, at the opera, Signore Beecken came to me in the pit, and aſked me if I would be introduced to one of the prettieſt ladies at Milan? *Senza dubbio.* He conducted me to the box of Signora Lamberti, a young, lively, and beautiful woman, who converſed with an eaſy and unaffected gaiety, that would make even a farmer wiſh to be her ciciſbeo. The office, however, is in the hands of another, who was ſeated in his poſt of honour, in the front of the box, *vis-a-vis* the lady.—— Refreſhments—ſuppers—magnificent ridotto. Having mentioned the ciciſbeo, I may obſerve, that the cuſtom ſeems to flouriſh at Milan; few married ladies are without this neceſſary appendix to the ſtate: there were to night a great number of them, each attending his fair. I aſked an Italian gentleman why he was not in his poſt as a

cicisbeo? He replied, he was not one. How so? If you have either business or other pursuit, it takes too much time. They are changed at pleasure, which the ladies defend, by saying, that when an extension of privileges not proper to give is expected, to part with is better than to retain them.

The 11th. To Lodi, through twenty miles of such amazing exertions in irrigation, that we can have in England no idea of it. At that town I found myself in the midst of the world; it was the night of terminating the opera season of the fair: this had drawn so much company from the neighbouring towns, that the great inn of the Columbina, formed out of a monastery, was full in an hour. At night the opera-house formed a gorgeous display:—we waited half an hour for the arch-duke and arch-duchess. The house was well lighted with wax; new to me, for in common their theatres have only darkness visible. It is small, but most elegant, new built this year: the decorations are neat; but the boxes, which are fitted up by the proprietors, are finished with great shew and expence; as fine as glass, varnish, and gilding can make them; and being lighted within made a blazing figure: the company crouded and well dressed; diamonds sparkled in every part of the house, while the expectation of pleasure, more animated in Italian than in French or English eyes, rendered the coup d'œil equally striking and agreeable; the profusion of dancers, dresses, scenes, &c. made me stare, for a little place of not more than ten or twelve thousand souls. No evening could pass with a more animated festivity; all the world appeared in good humour: the vibrations of pleasurable emotions seemed more responsive than common, for expression is one great feature in Italian physiognomy. I have dwelt the more on this spectacle, because I consider it in a political light, as deserving some attention. Lodi is a little insignificant place, without trade, and without manufactures. It is the part of a dominion that may be said to have neither, and cut off from all connection with the sea: yet there is not a town in France or England, of double the population, that ever exhibited a theatre so built, decorated, filled, and furnished, as this of Lodi. Not all the pride and luxury of commerce and manufactures—not all the iron and steel—the woollen or linen—the silk, glasses, pots, or porcelain of such a town as Lodi, ever yet equalled this exhibition of butter and cheese. Water, clover, cows, cheese, money, and music! These are the combinations—that string Italian nerves to enjoyment, and give lessons of government to northern politicians. The evening would have been delicious to me, if I had had my little girl with me; I could not help picturing her by my side, supposing the expressions of her pleasure, and giving an imaginary presence to her smiles, her enquiries, and her enjoyment. In truth it was better adapted to her age than to mine.——20 miles.

The 12th. I had brought a letter to a Signore Mayer, lieutenant of dragoons, who yesterday, when I waited on him, introduced me to the Cavaliere Don Baffiano Bona Moma, who promised to find a person this morning for conducting me to a celebrated dairy of his near Lodi; he was as good as his word, and by his means I was introduced into two dairies, one of ninety cows, and assisted in making the cheese. In the afternoon to Codogno, through fifteen miles of dead flat, of a singular aspect; it is intersected by ditches, without hedges, but a row of pollard poplars and willows on each side. The heads of these trees form a woodland, as the fields are very small, and looking through the stems, under the covert of their heads, is something like the prints I have seen of the forests of Tasso, but without the wildness or enchantment. The inhabitants here are neither witches, nymphs, nor knights, but cows and frogs: the music of the latter not so agreeable as last night's warblings of Senesino. In truth this country is better for these two animals than for man. The whole is a water sponge; the ditches innumer-

able; now water, now mud; the climate hot; and ventilation excluded by a crowd of aquatics. I figured ſickneſs and diſeaſe in every quarter: and the want of ſcattered habitations renders the whole ſilent and ſolitary, in ſpite of a conſiderable population, that is concealed by the endleſs pollards. Willows, ditches, mud, and frogs! theſe are features in perfect contraſt to the ſcenes of laſt night! yet they are attended by a fertility that gives warbling to the throat, and quivering to the fantaſtic toe of beauty. At Codogno waited on Signore Bignami, a conſiderable cheeſe-merchant. I was in luck; a numerous company ſpent the evening with him, from whom he ſelected a party well acquainted with graſs and cows; and retiring into another apartment, they had the goodneſs, with him and his ſon, to dedicate ſome time to the ſatisfying of my enquiries; and I ſhould be very backward if I did not obſerve that the free and agreeable manner in which they did it, proves equally their liberality and politeneſs. Codogno is a neat little town of about eight thouſand people. And note (for the thing is extraordinary,) an opera here too; another new built theatre, of this year. It is not ſo large, or ſo much decorated as that of Lodi, but the form is more pleaſing and more commodious; it is more circular. There are apartments contiguous for the firſt ſingers and dancers, communicating with a noble inn, the albergo del teatro.——15 miles.

The 13th. This morning Signore Bignami had kindly appointed for examining one of the principal dairies in the country, noted for making good cheeſe; fortunately the farmer proved communicative and liberal,—conducted us to the ſcene of action very readily, and directed his dairy-man to anſwer my enquiries. We attended the making of a cheeſe, and then walked over the farm: the farmers ſeem much at their eaſe. Take leave of my very friendly conductors, and reach Crema, in the Venetian ſtate. Here alſo a new-built opera-houſe, and the Mara from London firſt ſinger; they did not appear to reliſh too much her altitudes of diviſion,—yet ſhe was conſiderably applauded. Great powers in ſinging, when much exerted in difficult paſſages, ſurprize much more than they pleaſe. The airs that touch the heart, are what the poet calls "lengthened ſweetneſs long drawn out," that breathe a continuity of melody, flowing, not broken notes. The number of theatres in this part of Italy is aſtoniſhing: two great ones at Milan; in twenty miles, another, at Lodi; in fifteen, one way, Codogno; in ten, another, Crema; in ten, another, Plaiſance, &c.—yet trade and manufacture are very inconſiderable.——16 miles.

The 14th. To Lodi, through ten miles more of the ſame country; bad road through the ſtate of Venice; but the moment you enter the Milaneſe, you find an excellent one. Return to Milan.——30 miles.

The 15th. The country continues flat, much of it watered, but without ſuch exertions as to Lodi; all a crowded ſcene of willows. Vaprio, where we ſtopped, is a poor place, with a dirty, miſerable, wretched inn: here am I in a chamber, that ſinks my ſpirits as I ſit and look around me; my pen, ink, and tablets, are uſeleſs before me; I want them for two or three ſubjects that have paſſed acroſs my mind in the journey, but I can do nothing; to arrange ten words with propriety, is an inſurmountable effort. I never in my life wrote three lines to pleaſe myſelf, when the circumſtances around were untoward or diſagreeable; a clean, neat apartment, a good fire, ſomething to eat better than paſte-ſoup, with tolerable wine, give a lightneſs to the boſom, and a facility to the ideas. I have not yet read any of the Abbate Amoretti's pieces; but if he writes badly in that elegant apartment, and with all the circumſtances of eaſe and luxury around him, I ſhall not have ſo good an opinion of his head, as I think I ſhall always have of his heart. This chamber of Vaprio is contraſt ſufficient to his in the Palazzo Cuſani.

I can

I cannot write, ſo muſt neſtle in this nidus of fleas and bugs, which they call a bed.——20 miles.

The 16th. So much rain has fallen in the night, that the Adda has riſen too much to permit a carriage to reach the ferry; we waited, therefore, four hours till the water ſunk. This is a circumſtance to which a traveller is liable every day in Italy; for the rivers are ſo little under command, that a night's heavy rain will ſtop him. An impatient traveller, waiting on the banks of a river for the water's flowing, might, by equal genius, be ſet off as well in poetry, as a patient one is repreſented expecting till all was paſſed. The environs of the Adda here are fine; on the ſide of the Vaprio, high land, that commands the wooded vale. Arrive, at laſt, at Bergamo. I had a letter to Dr. Maironi da Ponte, ſecretary of the academy of Bergamo, to whom I went directly. I mounted a ſteep hill into the city, which is on the top of it, and ſearched hard for the doctor; after examining ſeveral ſtreets, a lady from a window, who ſeemed to pity my perplexity (for I had been conducted to three or four ſtreets in vain,) informed me, that he was in the country,—but that if I returned in the morning, I ſhould have a chance of ſeeing him. What a black, dirty, ſtinking, diſmal place! I ſtared at ſome well dreſſed people I met, wondering what they had to do there; thanking my ſtars that I was not an inhabitant of Bergamo; fooliſhly enough, as if it were the brick and mortar of a place that give felicity, and not the connections formed from infancy, and matured by habit. ——12 miles.

The 17th. Mount the hill again, in ſearch for Signore Maironi; and hearing he has a brother, to find him, ſhould I fail. I repaired to the ſtreet where the lady gave me information the night before; ſhe was luckily at her window, but the intelligence croſs to my wiſhes, for both the brothers were in the country; I need not go to the door, ſhe ſaid, for there were no ſervants in the houſe. The duſk of the evening in this dark town had laſt night veiled the fair incognita, but looking a ſecond time now, I found her extremely pretty, with a pair of eyes that ſhone in uniſon with ſomething better than a ſtreet of Bergamo. She aſked me kindly after my buſineſs, *Spero che non è un gran mancemento?* words of no import, but uttered with a ſweetneſs of voice that rendered the pooreſt monoſyllable intereſting. I told her, that the boſom muſt be cold, from which her preſence did not baniſh all feeling of diſappointment. It was impoſſible not to ſay ſomething a little beyond common thanks. She bowed in return; and I thought I read in her expreſſive eyes, that I had not offended; I was encouraged to aſk the favour of Signore Maironi's addreſs in the country—*Con gran piacere ve lo darò.*—I took a card from my pocket; but her window was rather too high to hand it. I looked at the door: *Forzi è aperta.*—*Credo che sì*, ſhe replied. If the reader be an electrician, and have flown a kite in a thunder-ſtorm, he will know, that when the atmoſphere around him becomes highly electric, and his danger increaſes, if he do not quickly remove, there is a cobweb ſenſation in the air, as if he was incloſed in an inviſible net of the filmieſt goſſimer. My atmoſphere, at this moment, had ſome reſemblance to it: I had taken two ſteps to the door, when a gentleman paſſing, opened it before me, and ſtood upon the threſhold. It was the lady's huſband; ſhe was in the paſſage behind, and I was in the ſtreet before him, ſhe ſaid, *Ecco un Signore Ingleſe che ha biſogno d'una direzione a Sig. Maironi.* The huſband anſwered politely, that he would give it, and, taking paper and pencil from his pocket, wrote and gave it me. Nothing was ever done ſo conciſely: I looked at him aſkance, and thought him one of the uglieſt fellows I had ever ſeen. An ill-natured by-ſtander would have ſaid, that his preſence prevented a farming from becoming a ſentimental traveller. Certain it is, one now and then meets

with terrible eyes in Italy; in the north of Europe they have attractive powers; here they have every ſort of power; the ſphere of the activity of an eye beam is enlarged, and he who travels as I do for the plough, muſt take care, as I ſhall in future, to keep out of the reach of it. From the ramparts of the town, below the houſe of the count de Brembate, there is a proſpect of fertile land, hardly to be equalled. In front, to the ſouth, a range of Appenines riſes above the fog, that hangs over a part of the plain. To the weſt, an immenſe curve of the Alps, that bound the Milaneſe and Piedmont; their heads uninterruptedly in ſnow, form one of the fineſt mountain-barriers to be imagined. To the eaſt, the view an unbroken, unlimited level. This vaſt plain, at one's feet, ſeems a level wood, with towns, churches, towers, and houſes. Near Bergamo, the angle of viſion permits the fields to be ſeen, and therefore more picturesque. Similar features muſt give ſimilar proſpects, this reſembles that of the Superga. It is as hot to-day, and every day of ſun-ſhine, as in England in June.

The 18th. Yeſterday I agreed with a vetturino, to take me this morning, at ſix o'clock, to Breſcia; but not being perfectly well, I inſiſted that he ſhould not come for me without his vettura, nor before the time. The raſcal knocked me up at five, and then without the carriage; it was only four ſteps, he ſaid, and wanted to hurry away my trunk. I begin to know them, and therefore ſteadily refuſed to ſtir: after much vain perſuaſion, away they went, and in three quarters of an hour returned. The fellow drove me a full mile and half, on the road to Breſcia, to an inn, where there was another vetturino, to whom he had ſold me; and there I found myſelf, packed with three other perſons, in the worſt place; to the contrary of all which the ſcoundrel had ſigned an agreement. My expreſſions of anger only got me laughed at. The world has not ſuch a ſet of villains as theſe vetturini. I have read guides and directories, and travels, that ſpeak of this way of journeying as paſſable;—if not good, very bearable; but they muſt be very partial, or very careleſs, if they mention them without indignation. Their carriages are wretched, open, crazy, jolting, dirty dung-carts; and as to their horſes, I thought, till I ſaw them, that the Iriſh garrans had no rivals on the globe; but the cavalli de vetturini convinced me of the error. My company were two merchant-like people, and a young man going to the univerſity of Padua; the two firſt repeating prayers, and counting beads. How the country came to be well irrigated, is a queſtion! Pater-noſters will neither dig canals, nor make cheeſe.——32 miles.

The 19th. I had letters for Signore Pilati, ſecretary to the ſociety of agriculture: he was in the country at his brother's farm, whither I went with pleaſure; he was to introduce me to Count Corniano, the preſident, but he is abſent, twenty miles out of my road. In the evening to the opera; the houſe large, but ugly: the Avara, badly acted; and the taſte of the audience (the pit, not the boxes, ſhew a nation) ſtill worſe. Puns, conceits, diſtortions, and exaggerated action, gained great applauſe. A child telling his name, of ten or a dozen hard ſyllables, and an exaggerated mimickry of all tempting to repeat them, were encored more violently than the fineſt airs would have been. This depravity of national taſte is amazing, amongſt a people that have produced ſuch proofs of genius in almoſt every walk of life.

The 20th. After a repetition of the old plagues, to find a vetturino for Verona, agreed at laſt at the extravagant price of 33 lire. Depart, after dinner, with a young woman and a boy of eight or nine years old. She had not two ideas beyond her ſnuff-box, and a crucifix. I have no opinion of Venetian police, from the villainous roads through all their territory; they conſiſt every where of great ſtones, broken pavements, or mud. The country is not near ſo rich as the Milaneſe, but all thickly incloſed with hedges full of mulberries; and incumbered, to uſe Profeſſor Symonds's juſt expreſſion, with pollard

pollards for training vines. Reach Doſenzano in the dark. What my religious companion did with herſelf, I know not; I ſupped alone, thanking God ſhe had not the eyes of the Bergamaſque fair. In the night, I thought the noiſe of water was different from that of a ſtream, and opening the windows in the morning, found it the waves of a fine lake. The Lago di Garda was out of my recollection.——15 miles.

The 21ſt. Coaſt the lake, with good views of it for ſeveral miles. From Breſcia to Verona, but eſpecially to Deſenzano, I believe there are fifty croſſes by the ſide of the road for deaths. When a perſon is murdered they ſet up a croſs for the good of his ſoul. They had better inſtitute a police for that of his body. What a ſcandal to a government are ſuch proofs of their negligence! yet that of Venice is called a wiſe one. Impaſſable roads, towns unlighted, and a full harveſt of aſſaſſinations; with men counting their beads, and women croſſing themſelves, are the chief ſigns of wiſdom I have yet ſeen. Arrive at Verona in time to deliver a letter to Signore Cagniola, aſtronomer and ſecretary of the Agrarian Society: this muſt be a pretty inſtitution, a ſociety of farmers, with an aſtronomer for their ſecretary. He introduced me at the coffee-houſe of the Piazza to ſome lovers of agriculture; and made an appointment with the preſident of the ſociety for to-morrow.——25 miles.

The 22d. Ill luck: the preſident is obliged to go into the country; and he thinks me, I ſuppoſe, like Italian theoriſts, tied to a town. Signore Cagniola directed his ſervant to ſhew me to the houſe of Signore Michael Angelo Locatelli, to whom he had named the object of my journey laſt night. I found this gentleman, who is engaged in commerce, but who has two farms in his hands, ready to converſe with me on the ſubject of my enquiries; of Signore Cagniola, I ſaw or heard no more. I felt myſelf uncomfortable at Verona, till I had ſeen the amphitheatre, which is in truth a noble remain of antiquity, ſolid and magnificent enough yet to laſt perhaps ſome thouſands of years; that of Niſmes, cluttered up with houſes, muſt not be named with this. As I ſtood on the verge of this noble building, I could not but contemplate in idea, the innumerable crouds of people who had been ſpectators of the ſcenes exhibited in it: the reflection was attended with what is to me a melancholy impreſſion—the utter oblivion in which ſuch hoſts are now loſt! time has ſwept their memories from the earth—has left them no traces in the records of mankind; yet here were wit and beauty, wealth and power; the vibrations of hope and fear; the agitations of exertion and enterprize——all buried in the ſilence of ſeventeen hundred years!—I read the works of ſo few poets, that I know not if the idea of ſuch oblivion have been to them as melancholy as it is to me; if ſo, they have doubtleſs given energy to the ſentiment, by the force and beauty of their expreſſions.

The 23d. This morning, I took a cicerone to attend me to view churches and palaces, an uncomfortable method, but when a traveller has one principal purſuit, ſuch ſecondary objects muſt give way. The great fault here, as every where elſe, is being carried to too many things. Nothing ſtrikes more at Verona than the works of an architect, whoſe name is little known in England, San. Michael Michieli; they are of diſtinguiſhed merit, and muſt pleaſe every eye. The chapel of the Pellegrini family, in the Bernardine church, and the rotunda of St. Georgio, are beautiful edifices. There is ſomething ſingular in the Palazzo Bevilaqua, an idea which might have been copied with more ſucceſs, than many others that have been repeated often. The Palazzo di Conſiglio is ſimple and elegant, and preſents one of the moſt pleaſing examples of an arcade, for a ſtreet or ſquare. The theatre is large, but nothing after Milan. My expences at Breſcia, and at Verona are, dinner 3 pauls, ſupper 2, chamber 2; which at 5d. Engliſh, are 2s. 11d. a-day; and as I have rooms not at all bad, good beds, and am as well ſerved at the meals as I require, it is remarkably cheap.

The

The 24th. The country to Vicenza is all flat, and moſtly of a ſingular face; rows of elm and maple pollards, with vines trained up, and from tree to tree; between the rows arable. This ſyſtem is not diſagreeable till it grows tedious to the eye.——32 miles.

The 25th. Wait on Count Tiene, to whom I had a recommendation; he opened the letter, but found it was to another Count Tiene, who lived in the country, near Vicenza; reading in it, however, ſome expreſſions of commendation, which friends are apt to uſe in ſuch letters, he with great eaſe and politeneſs, as he returned me the paper, offered me any aſſiſtance in his power: "Yours, Sir, is an errand that ought to recommend you to all mankind; and if you find the leaſt difficulties with others, I beg you will return to this houſe," which is one of the Palazzi di Palladio. I waited then on the Abbate Pierropan, profeſſor of phyſics and mathematics. He had the direction, for ſome years, of the œconomical garden, given by the ſtate for experiments in agriculture, now in the hands of the Agrarian Academy: he received me with great politeneſs; and not only expreſſed every wiſh to aſſiſt me, but entered immediately on the buſineſs, by propoſing a walk to call on the Count de Boning, preſident of that academy, in our way to the garden. I have a poor opinion of all theſe eſtabliſhments on a ſmall ſcale; in any hands they are not calculated to do much; and in hands not truly practical, they are calculated to do nothing. The Count de Boning, finding that I wiſhed to converſe with ſome real common farmers, appointed the afternoon for going into the country, about three miles, to a farm of his, where I ſhould find an intelligent perſon: he then took his leave for the preſent,—and Signore Pierropan and myſelf proceeded to the villa of the Count de Tiene; as he was abſent for an hour only, we employed that time in walking a little further, to view the celebrated rotunda of Palladio, belonging to Count Capra, one of the three greateſt works of that great genius they poſſeſs at Vicenza. It is of a beautiful mean, between decoration and ſimplicity; the diſtribution ſeems a new and original thought, much more adapted, however, to Italy than to England; for, in the ſpace of one hundred Vicentine feet, we might, relatively to our climate and manners, have a houſe far exceeding it. I am concerned to ſee ſo delicious a morſel ſuffered to go much to decay; the plaiſter on the brick columns is wearing off, and other neglect viſible. The beauty of the environs of Vicenza exceeds any thing I have ſeen in Italy, viewed from the hill on which theſe houſes, and the church, Santa Maria del Monte, are ſituated; the city in the rich plain, and the hills ſpread with white buildings, crowned by the Alps, are fine. The Count de Tiene, with the aſſiſtance of another nobleman, of more experience, who happened to be preſent, gave me ſome information, relative to the part of the Vicentine, in which their eſtates are ſituated. Quitting him, I begged the Abbate Pierropan to favour me with his company at dinner, by which means I had the benefit of his converſation ſo much longer on the favourite topic. The Abbate de Traico, vice-preſident of the academy, joined us. After dinner, according to appointment, to the Count de Boning, whoſe coach was ready, and carried us to the farm. Fortunately the farmer, a ſenſible and intelligent man, was ready to anſwer all ſuch enquiries as I put to him. At night, returned to the city, after a rich day, that pays for the trouble of travelling.

The 26th. My friendly Abbate, continuing his obliging offices, had the goodneſs to accompany me this morning to a very famous woollen fabric, at preſent under the direction of an Engliſhman; and to a magazine of earthern-ware, in imitation of Mr. Wedgwood. It is ſurely a triumph of the arts in England, to ſee in Italy Etruſcan forms copied from Engliſh models. It is a better imitation than many I have ſeen in

France. View the Olympic theatre of Palladio, which pleaſes all the world; nothing can be more beautiful than the form, or more elegant than the colonade that ſurrounds it. Of all his works here, I like the Palazzo Barbarana leaſt. I am ſorry to ſee, that moſt of Palladio's edifices are of bricks ſtuccoed, except the Palazzo Ragione, which is of durable ſtone; and that there is hardly one of them which is not out of repair. The roof of the Palazzo di Ragione, which muſt offend every eye, is not of Palladio; only the caſe of arcades that ſurround the building, which is one vaſt room of two hundred feet by eighty, uſed for the courts of juſtice, and alſo as a common jakes by the mob, and dreadfully garniſhed. A pretty uſe to which to apply an edifice of Palladio. The brick columns of this great architect are of the fineſt work I ever ſaw; and ſome of the ſtucco but now failing, after two hundred years. At Verona and Vicenza, there are very few new houſes, and no ſigns, that I could ſee, of the wealth and proſperity of the preſent age. There are exceptions, but they are few. A ſilk merchant here has built a good houſe; and Signore Cordelina, an advocate at Venice, a large and handſome one, that coſt 100,000 ducats, without being finiſhed: he made his fortune by pleading.

The 27th. To Padua. The country, which has been called a garden by travellers, not at all better cultivated than before, but deeper and richer. The ame flat, lined into rows of pollards and vines in the ſame manner; very little irrigation, except ſome rice. Waited on Signore Arduino, experimenter in agriculture, on a farm, or rather a garden of twelve acres, given by the ſtate. I had heard much of this œconomical garden, and of the great number of uſeful experiments made in it; ſo much, indeed, that it weighed conſiderably with me in the arrangement of my journey; Venice was no object; and I could not, if I took Padua, have time for the Pontine marſhes and Rome, which, by the direct road, I could have reached from Milan; but an experimental farm, the firſt I was aſſured in Europe, and which had thrown light on various important enquiries, was an object which I ought, as a farming traveller, to prefer to any city, and I determined accordingly. Signore Arduino received me politely, and appointed to-morrow for that gratification. At night to the opera, the Due Baroni, of Cimaroſa, whoſe muſic to me has always ſomething original and pleaſing; but though the parts were not ill performed, and the orcheſtra powerful, yet the houſe being almoſt empty, and thoſe in it wearing ſuch a ſhabby appearance, and all the muſicians ſo dirty and undreſſed, that I felt here, what I have often done before, that half the charms of a theatre depend on the audience;—one muſt be in good humour—a certain exhilaration muſt be ſpringing in the boſom; willingneſs to enjoy muſt be expanded into enjoyment by the ſympathy of ſurrounding objects. Pleaſure is caught from eyes that ſparkle with the expectation of being pleaſed. Empty boxes, and a dirty pit, with a theatre but half lighted, made the muſic, with all its gaiety, ſombre; I left Gulielmi's Paſtorella nobile, for the ſilence of my chamber.—— 21 miles.

The 28th. In the morning, viewing buildings, of which ſome are worth the trouble: then to deliver letters, but I was not fortunate in finding Meſſieurs the profeſſors at home: Signore Arduino was ſo by appointment, and ſhewed me the experimental farm, as it ought to be called, for he is profeſſor of practical agriculture in this celebrated univerſity. I will enter into no detail of what I ſaw here. I made my bow to the profeſſor; and only thought, that his experiments were hardly worth giving up the capital of the world. If I keep my reſolution, this ſhall be the laſt œconomical garden that I will ever go near. Among the buildings I viewed to-day, I was much ſtruck with the church Santa Juſtina: though built in no perfect ſtyle, it has, on entering, an effect unuſually impoſing. It is clean, and well kept; the pavement a very fine

one, of marble—and the magnitude being conſiderable, forms, on the whole, a ſplendid coup d'œil. That of St. Anthony is little, on compariſon, and made leſs by multiplied diviſions and numerous decorations. Numbers were on their knees before the ſainted ſhrine, to which millions have reſorted. Here mingled faith, folly and enthuſiaſm, have ſought conſolation, and found more than they merited. The Palazzo di Conſiglio, which we ſhould call the town-hall, is one of the greateſt—if not the greateſt room in Europe. It is three hundred feet long, and one hundred broad; it does not want the excrementitious garniture of that of Vicenza.

The 29th. Waited, by appointment, on Signore Carbury, profeſſor of chemiſtry; a lively pleaſing man, with whom I wiſhed to converſe a little on the application of his ſcience to agriculture; but that was not eaſy. Politics came acroſs him, in which I happened to mention the extraordinary proſperity of England ſince the American war; and he took the clue, and conducted it through ſuch a labyrinth of admirals, generals, red-hot balls, and floating batteries:—Rodney, Elliot, Necker, and Catharine, with Lord knows what beſides, that I thought he meant to make a tour as great as Mr. Wraxall's. He however gave me a note to the celebrated aſtronomer, Signore Toaldo, to whom I wanted an introduction, and whoſe obſervatory I viewed. He aſſured me, that he continues firmly of the ſame opinion, of which he has always been, relative to the influence of the moon on our ſeaſons, and the importance of attending to the lunar period of eighteen years. I begged the titles of his memoirs, as I had yet procured only his Meteorologia applicata all' Agricoltura; he ſaid the others were difficult to find, but he would give me them. For this generous offer, I expreſſed my warmeſt thanks, and readily accepted it. On deſcending into his library, he preſented me with the ſupplement to what I had; and alſo his tract, Della Vera Influenza, &c. After ſome other converſation, he told me, the price was 8 lire, and the ſupplement, 30 ſoldi. I was at a loſs to know what he meant, by telling me the price of his book; for, to offer him money, would, I feared, affront him. After ſome minutes, he again reminded me, that the price was 9½ lire: on which I took out my purſe. The Vera Influenza, he ſaid, was only ſix lire; but being ſcarce, he muſt have eight for it, which, with 30*ſ.* for the other, made 9½ livres. I paid him, and took my leave. There was not the leaſt reaſon to expect Signore Toaldo to make me, an utter ſtranger, a preſent of a farthing; but his manner made me ſmile. I had left a letter yeſterday at the houſe of the Abbate Fortis, well known in England by his travels in Dalmatia; to-day I received a viſit from him. He has that livelineſs and vivacity which diſtinguiſh his nation; was polite in his offers of ſervice, and entered into converſation concerning the vines of his country. He travelled, many years ago, with Lord Briſtol and Profeſſor Symonds; and I was glad to find, that he ſpoke as handſomely of them both, as I have heard them both mention him.

This is the third evening I have ſpent by myſelf at Padua, with five letters to it; I do not even hint any reproach in this; they are wiſe, and I do truly commend their good ſenſe: I condemn nobody but myſelf, who have, for fifteen or twenty years paſt, whenever a foreigner brings me a letter, which ſome hundreds have done—given him an Engliſh welcome, for as many days as he would favour me with his company, and ſought no other pleaſure but to make my houſe agreeable. Why I make this minute at Padua, I know not; for it has not been peculiar to that place, but to ſeven eighths of all I have been at in Italy. I have miſtaken the matter through life abundantly—and find that foreigners underſtand this point incomparably better than we do. I am, however, afraid that I ſhall not learn enough of them to adopt their cuſtoms, but continue thoſe of our own nation.

The 30th. I had been ſo ſick of vetturini, that I was glad to find there was a covered paſſage boat that goes regularly to Venice; I did not expect much from it, and

therefore was not diſappointed to find a jumble of all ſorts of people; except thoſe of fortune. There were churchmen, two or three officers, and ſome others, better dreſſed than I ſhould have looked for, for in Italy people are obliged to be œconomical. At Dolo, the half way place, I formed, for dinner a little party, of two Abbati, an officer, and a pretty Venetian girl, who was lively and ſenſible. We dined by ourſelves, with great good humour. After leaving Fuſina, there is from the banks of the canal (I walked much of the journey), at the diſtance of four miles, a beautiful view of the city. On entering the Adriatic, a party of us quitted the bark, and to ſave time, hired a large boat, which conveyed us to this equally celebrated and ſingular place; it was nearly dark when we entered the grand canal. My attention was alive, all expectancy: there was light enough to ſhew the objects around me to be among the moſt intereſting I had ever ſeen, and they ſtruck me more than the firſt entrance of any other place I had been at. To Signore Petrillo's inn. My companions, before the gondola came to the ſteps, told me, that as ſoon as Petrillo found me to be a Signore Ingleſi, there would be three torches lighted to receive me:—it was juſt ſo: I was not too much flattered at theſe three torches, which ſtruck me at once as three pick-pockets. I was conducted to an apartment that looked upon the grand canal, ſo neat, and every thing in it ſo clean and good, that I almoſt thought myſelf in England. To the opera. A Venetian audience, a Paduan, Milaneſe, Turineſe, &c. exactly ſimilar for dancing. What with the ſtupid length of the ballets, the importance given to them, and the almoſt excluſive applauſe they demand, the Italian opera is become much more a ſchool of dancing than of muſic. I cannot forgive this, for of forty dances, and four hundred paſſages, there are not four worth a farthing. It is diſtorted motion, and exaggerated agility; if a dancer places his head in the poſition his heels ſhould be in, without touching the ground; if he can light on his toes, after twirling himſelf in the air; if he can extend his legs, ſo as to make the breadth of his figure greater than the length; or contract them to his body, ſo as to ſeem to have no legs at all; he is ſure to receive ſuch applauſe, ſo many bravos, and braviſſimos, as the moſt exquiſite airs that ever were compoſed would fail to attract. The ballarine, or female dancers, have the ſame fury of motion, the ſame energy of diſtortion, the ſame tempeſt of agility. Dances of ſuch exquiſite elegance, as to allure attention, by voluptuous eaſe, rather than ſtrike it by painful exertion, are more difficult, and demand greater talents: in this ſuperior walk, the Italians, where I have been, are deficient.——24 miles.

The 31ſt. My firſt buſineſs was to agree with a gondolier, who is to attend me for 6 paoli a day. This ſpecies of boat, as all the world knows, is one of the moſt agreeable things to be found at Venice; at a trifling expence, it equals the convenience of a coach and a pair of horſes in any other city. I rowed out to deliver letters. Venice is empty at preſent, almoſt every body being in the country; but I met with Signore Giovanne Arduino, ſuperintendant of agriculture throughout the Venetian dominions, who has a conſiderable reputation, for the attention he has given to this object, and for ſome publications on it. It may be ſuppoſed, from his reſidence in this city, that he is not himſelf a practical huſbandman. Spent a few hours among palaces, churches, and paintings. Every where in Italy, the number of theſe is too great to dwell on. I ſhall only note, that the picture which made the greateſt impreſſion on me, was the family of Darius at the feet of Alexander, by Paul Veroneſe. The expreſſion of the moment is admirably caught; the ſtory well told; the grouping ſkilful; the colouring mellow and brilliant; the whole nature; all is alive; the figures ſpeak; you hear the words on their lips; a calm dignity is admirably mixed with the emotions of the moment.—Here was a ſubject worthy of employing a genius. It is in the Palazzo Piſani. Titian's preſentation in the Temple, in the Scuola della Carità, pleaſed me greatly. His be-

witching pencil has given ſuch life and luſtre to ſome figures in this piece, that the eye is not ſoon ſatisfied with viewing it. The Doge's palace contains ſuch a profuſion of noble works by Tiziano, Tintoretto, Paolo Veroneſe, Baſſano, and Palma, as to form a ſchool for artiſts to ſtudy in. Cochin, in his Voyage d'Italie, has given the particulars, with criticiſms that have leſs offended the Italians, than moſt other works of a ſimilar kind. The brazen horſes, given to Nero by Tiridates, carried to Conſtantinople by Conſtantine, and brought thence by the Venetians, when they took that city, are admirable: pity they are not nearer to the eye. The mouths of the lions, not leſs celebrated than Venice itſelf, are ſtill in exiſtence; I hope regarded with deteſtation by every man that views them. There is but one accuſation that ought to enter them; the voice of the people againſt the government of the ſtate. In the evening at the theatre, (a tragedy) I was agreeably diſappointed, to find that the Italians have ſomething beſides harlequin and punchinello.

November 1. The cheapneſs of Italy is remarkable, and puzzles me not a little to account for; yet it is a point of too much importance to be neglected. I have, at Petrillo's, a clean good room, that looks on the grand canal, and to the Rialto, which, by the way, is a fine arch, but an ugly bridge; an excellent bed, with neat furniture, very rare in Italian inns, for the bedſtead is uſually four forms, like truſsles, ſet together; fine ſheets, which I have not met with before in this country; and my dinner and ſupper provided at the old price of 8 paoli a-day, or 3s. 4d. including the chamber. I am very well ſerved at dinner with many and good diſhes, and ſome of them ſolids; two bottles of wine, neither good nor bad, but certainly cheap; for though they ſee I drink ſcarcely half of it in my negus at ſupper, yet a bottle is brought every night. I have been aſſured, by two or three perſons, that the price at Venice, à la mercantile, is only 4 to 6 paoli; but I ſuppoſe they ſerve a foreigner better. To theſe 8 paoli, I add 6 more for a gondola;—breakfaſt 10 ſoldi; if I go to the opera, it adds 3 paoli;—thus, for 7s. 3d. a-day, a man lives at Venice, keeps his ſervant, his coach, and goes every night to a public entertainment. To dine well at a London coffee-houſe, with a pint of bad port, and a very poor deſert, coſts as much as the whole day here. There is no queſtion but a man may live better at Venice for 100l. a year, than at London for 500; and yet the difference of the price of the common neceſſaries of life, ſuch as bread, meat &c. is trifling. Several cauſes contribute to this effect at Venice; its ſituation on the Adriatic, at the very extremity of civilized Europe, in the vicinity of many poor countries; the uſe of gondolas, inſtead of horſes, is an article perhaps of equal importance. But the manners of the inhabitants, the modes of living, and the very moderate incomes of the maſs of the people, have perhaps more weight than either of thoſe cauſes. Luxury here takes a turn much more towards enjoyment, than conſumption; the ſobriety of the people does much, the nature of their food more; paſtes, macaroni, and vegetables are much eaſier provided than beef and mutton. Cookery, as in France, enables them to ſpread a table for half the expence of an Engliſh one. If cheapneſs of living, ſpectacles, and pretty women, are a man's objects in fixing his reſidence, let him live at Venice: for myſelf, I think I would not be an inhabitant to be Doge, with the power of the Grand Turk. Brick and ſtone, and ſky and water, and not a field or a buſh even for fancy to pluck a roſe from! My heart cannot expand in ſuch a place: an admirable monument of human induſtry, but not a theatre for the feelings of a farmer!—Give me the fields, and let others take the tide of human life, at Charing-croſs and Fleet-ditch *. Called again on

* See Mr. Boſwell's agreeable Life of Dr. Johnſon.

Signore

Signore Arduino; converſe on the ſtate of agriculture in Italy, and the cauſes which have contributed to accelerate or retard it; and from him to a conſervatorio at the Oſpalletto. Dr. Burney, in his pleaſing and elegant tour, has given an account of them.

The 2d. A tour among Chieſe, Scuole, e Palazzi; but there is ſuch an abundance of buildings and collections to which books ſend one, that much time is always loſt. The only traveller's guide that would be worth a farthing, would be a little book that gave a catalogue of the beſt articles to be ſeen in every town, in the order of merit. So that if a man in paſſing have but one hour, he uſes it in ſeeing the beſt object the place contains; if he have three days, he takes the beſt the three days will give him; and if he ſtay three months he may fill it with the like gradation; and what is of equal conſequence, he may ſtop when he pleaſes and ſee no more; confident, as far as he has extended his view, that he has ſeen the objects that will pay him beſt for his attention. There is no ſuch book, and ſo much the worſe for travellers. In the library of St. Mark among the antiques, are Commodus, Auguſtus, and Adrian; and more particularly to be noted, a fallen gladiator: a ſingular and whimſical Leda, by Cocenius. In the Palazzo Barbarigo, the Venus and the Magdalen of Titian, are beautiful, though they have loſt much of their glowing warmth by time. Two Rembrandts in the Palazzo Farſetti. A Holy Family, by Andrea del Sarto. Titian's portrait, by himſelf. I finiſhed by going up St. Mark's tower, which is high enough to command a diſtinct view of all the iſlands on which Venice is built, and a great range of coaſt and mountains. The country ſeems every where a wood. Nothing rivals the view of the city and the iſles. It is the moſt beautiful, and by far the moſt ſingular that I have ſeen. The breadth of the Giudecca canal, ſpread with ſhips and boats, and walled by many noble buildings, with the iſles diſtinct from Venice, of which the eye takes in four-and-twenty, form, upon the whole, a coup d'œil, that exceeds probably every thing the world has to exhibit. The city, in general, has ſome beautiful features, but does not equal the idea I had formed of it, from the pictures of Canaletti. A poor old Gothic houſe makes a fine figure on canvas. The irregularity of front is greater perhaps than in any other city of equal importance; no where preſerved for three houſes together. You have a palace of three magnificent ſtories, and near it a hovel of one. Hence, there is not that ſpecies of magnificence which reſults from uniformity; or from an uninterrupted ſucceſſion of conſiderable edifices. As to ſtreets, properly ſo called, there is nothing ſimilar to them in the world; twelve feet is a broad one; I meaſured the breadth of many that were only four and five. The greater part of the canals, which are here properly the ſtreets, are ſo narrow, as to take off much from the beauty of the buildings that are upon them. St. Mark's place has been called the fineſt ſquare in Europe, which is a fine exaggeration. It appears large, becauſe every other ſpace is ſmall. The buildings, however, that ſurround it are ſome of them fine; but they are more intereſting than beautiful. This ſpot is the immediate ſeat and heart of one of the moſt celebrated republics that has exiſted. St. Mark's church, the Doge's palace, the library, the Doge himſelf, the nobles, the famous caſinos, the coffee-houſes: thus, St. Mark's ſquare is the ſeat of government, of politics, and of intrigue. What Venice offers of power and pleaſure, may be ſought here; and you can uſe your legs commodiouſly no where elſe. Venice ſhines in churches, palaces, and one fine ſquare; and the beauty of the large canals is great. What ſhe wants are good common houſes, that mark the wealth and eaſe of the people; inſtead of which, the major part are Gothic, that ſeem almoſt as old as the republic. Of modern houſes there are few—and of new ones fewer; a ſure proof that the ſtate is not flouriſhing. Take it,

it, however, on the whole, and it is a moſt noble city; certainly the the moſt ſingular to be met with in the world. The canal of the Giudecca, and the grand canal, are unrivalled in beauty and magnificence. Four great architects have contributed their talents for the fine buildings to be met with here;—Palladio, St. Micheli, Sanſovino, and Scamozzi. The church of St. Georgio Maggiore, by the firſt, is of a noble ſimplicity; and that of St. Maria della Saluta, by St. Micheli, has parts of admirable beauty; he ſeems always happy in his domes; and the portal of this church is truly elegant. If a genius were to ariſe at preſent at Venice, as great as Palladio, how would he find employment? The taſte of building churches is over: the rich nobles have other ways of ſpending their incomes. Great edifices are uſually raiſed by newly acquired fortunes; there are now either none, or too inconſiderable to decorate the city. In England, all animated vigour of exertion is among individuals, who aim much more at comfort within, than magnificence without; and for want of public ſpirit and police, a new city has ariſen at London, built of baked mud and aſhes, rather than bricks; without ſymmetry, or beauty, or duration; but diſtinguiſhed by its cleanneſs, convenience, and arrangement. At a prova, or rehearſal of a new opera, Il Burbero benefico, by Martini of Vienna, much to my entertainment.

The 3d. To the the arſenal, in which there is very little indeed worth the trouble of viewing; travellers have given ſtrange exaggerations of it; the number of ſhips, frigates, and gallies is inconſiderable; and I came outof this famous arſenal, with a much meaner opinion of the Venetian naval force, than I had entered it. Yet they ſay there are three thouſand men conſtantly employed: if there are half the number, what are they about? The armoury is well arranged, clean, and in good order. The famous bucentaur is a heavy, ill built, ugly gilded monſter, with none of that light airy elegance which a decorated yacht has. A thing made for pleaſure only, ſhould have at leaſt an agreeable phyſiognomy. I know nothing of the ceremony ſo good as Shenſtone's ſtanza, comparing the vanity of the Doge's ſplendour on that day, with the real enjoyment which a hermit on her ſhore has of his ducal cara ſpoſa. The ſhips in this arſenal, even of eighty eight guns, are built under cover; and this is not ſo great an expence as might be thought; the buildings are only two thick brick walls, with a very light roof: but the expence is probably much more than ſaved in the duration of the ſhip. I mounted by the ſcaffolds, and entered one of eighty-eight guns, that has been twenty-five years building, and is not above four-fifths finiſhed at preſent. At the opera——The ſex of Venice are undoubtedly of a diſtinguiſhed beauty; their complexions are delicate, and, for want of rouge, the French think them pale; but it is not perſon, nor complexion, nor features, that are the characteriſtic; it is expreſſion, and phyſiognomy; you recognize great ſweetneſs of diſpoſition, without that inſipidity which is ſometimes met with it; charms that carry a magic with them, formed for ſenſibility more than admiration; to make hearts feel much more than tongues ſpeak. They muſt be generally beautiful here, or they would be hideous from their dreſs; the common one, at preſent, is a long cloth cloak, and a man's cocked hat. The round hat in England is rendered feminine by feathers and ribbons; but here, when the petticoats are concealed, you look again at a figure before you recogniſe the ſex. The head-dreſſes I ſaw at Milan, Lodi, &c. ſhew the taſte and fancy of this people. It is indeed their region; their productions in all the fine and elegant arts have ſhewn a fertility, a facility of invention, that ſurpaſſes every other nation; and if a reaſon be ſought, for the want of energy of character with which the modern Italians have been reproached (perhaps unjuſtly) we may poſſibly find it in this exquiſite taſte—perhaps inconſiſtent in the ſame characters with thoſe rougher and more rugged feelings, that

reſult

reſult from tenſion, not laxity, of fibre. An exquiſite ſenſibility has given them the empire of painting, ſculpture, architecture, poetry, and muſic; whether or not to this it may be imputed that their beautiful country has been left under the dominion of Germans, Frenchmen, and Spaniards, is a queſtion not difficult to decide.

The 4th. I am in double luck; two perſons, to whom I had letters, are returned from the country. I waited upon one of them who received me in a very friendly manner, and entered into a converſation with me intereſting, becauſe on ſubjects of importance. I explained to him the object of my travels; and told him that I reſided a few days in great cities, for the advantage of converſation on thoſe topics of political œconomy, which concerned the general welfare of all nations. He told me very frankly that he was no farmer, and therefore for the practical part of my enquiries could not ſay much: that as to the other objects, which were without doubt important, he would give me any information in his power. I ſaid, that I wiſhed for none on points which the nature of the government made improper to aſk about; and if inadvertently I ſhould demand any thing of that complexion, he would have the goodneſs to pardon and paſs it by. He interrupted me haſtily, "foreigners are ſtrangely apt to entertain falſe ideas of this republic; and to think that the ſame principles govern it at preſent as are ſuppoſed to have been its guidance ſome centuries paſt. In all probability half of what you have heard about it is erroneous; you may converſe as freely at Venice as at London; and the ſtate is wiſe enough (for in ſuch caſes it is really very moderate and tender) to concern itſelf not at all with what does not tend directly to injure or diſturb the eſtabliſhed order of things. You have heard much of ſpies, and executions, and drownings, &c. but, believe me, there is not one circumſtance at Venice that is not changed, and greatly too, even in twenty years." Encouraged by this declaration, I ventured to put enquiries on population, revenues, taxes, liberty, &c. and on the government as influencing theſe; and it gave me no ſlight ſatisfaction to find that he was the man he had been repreſented; —able, keen, and intelligent; who had ſeen much of the world, and underſtood thoſe topics perfectly. He was ſo obliging as to aſk me to ſpend what time I could with him—ſaid, that for ſome days he ſhould be conſtantly at home; and whenever it ſuited me to come, he deſired me to do it without ceremony. I was not equally fortunate with the other perſon; who ſeemed ſo little diſpoſed to enter into converſation on any ſubject but trifles, that I preſently ſaw he was not a man for me to be much the wiſer for: in all political topics it was eaſy to ſuppoſe motives for ſilence; but relatively to points of agriculture, or rather the produce of eſtates, &c. perhaps his ignorance was the real cauſe of his reſerve. In regard to cicisbeiſm, he was ready enough to chat; he ſaid that foreigners wer every illiberal in ſuppoſing that the cuſtom was a mere cloak for vice and licentiouſneſs; on the contrary, he contended, that at Paris, a city he knew well, there is juſt as much freedom of manners as at Venice. He ſaid as much for the cuſtom as it will bear; mollifying the features of the practice, but not removing them. We may however hope, that the ladies do not merit the ſcandal with which foreigners have loaded them; and that the beauty of ſome of them is joined with what Petrarch thought it ſo great an enemy to:

> Due gran nemiche inſieme erano aggiunte
> Bellezza ed oneſtà———

At night to a new tragedy of Fayel, a tranſlation from the French; well acted by Signore and Signora Belloni. It is a circumſtance of criticiſm, amazing to my ears, that the Italian language ſhould have been repreſented as wanting force and vigour, and

and proper only for effeminate ſubjects. It ſeems, on the contrary, as powerfully expreſſive of lofty and vigorous ſentiments, of the terrible and the ſublime, as it is admirable in breathing the ſofteſt notes of love and pity; it has even powers of harſh and rugged expreſſion. There is nothing more ſtriking in the manners of different nations, than in the idea of ſhame annexed to certain neceſſities of nature. In England a man makes water (if I may uſe ſuch an expreſſion) with a degree of privacy, and a woman never in ſight of our ſex. In France and Italy there is no ſuch feeling, ſo that Sterne's Madame Rambouillet was no exaggeration. In Otahite, to eat in company is ſhameful and indecent; but there is no immodeſty in performing the rites of love before as many ſpectators as chance may aſſemble. There is between the front row of chairs in the pit and the orcheſtra, in the Venetian theatre, a ſpace of five or ſix feet without floor; a well-dreſſed man, ſitting almoſt under a row of ladies in the ſide-boxes, ſtepped into this place, and made water with as much indifference as if he had been in the ſtreet; and nobody regarded him with any degree of wonder but myſelf. It is, however, a beaſtly trick: ſhame may be ideal, but not cleanlineſs; for the want of it is a ſolid and undoubted evil. For a city of not more than one hundred and fifty thouſand people, Venice is wonderfully provided with theatres; there are ſeven; and all of them are ſaid to be full in the carnival. The cheapneſs of admiſſion, except at the ſerious opera, undoubtedly does much to fill them.

The 5th. Another tour among palaces, and churches, and pictures; one ſees too many at once to have clear ideas. Called again on ——— ———, and had another converſation with him better than a ſcore of fine pictures. He made an obſervation on the goodneſs of the diſpoſition of the common people at Venice, which deſerves, in candour, to be noted; that there are ſeveral circumſtances, which would have conſiderable effect in multiplying crimes, were the people diſpoſed to commit them: 1ſt, the city is abſolutely open, no walls, no gates, nor any way of preventing the eſcape of criminals by night, as well as by day:—2d, that the manner in which it is built, the narrowneſs and labyrinth direction of the ſtreets, with canals every where, offer great opportunities of concealment, as well as eſcape: 3d, the government never reclaims of any foreign power a criminal that flies: 4th, there is no police whatever; and it is an error to ſuppoſe that the ſyſtem of *eſpionage* (much exaggerated) is ſo directed as to anſwer the purpoſe: 5th, for want of more commerce and manufactures, there are great numbers of idle loungers, who muſt find it difficult to live: 6th, and laſtly, the government very ſeldom hangs, and it is exceedingly rare otherwiſe to puniſh.—From this union of circumſtances it would be natural to ſuppoſe, that rogues of all kinds would abound; yet that the contrary is the fact; and he aſſured me, he does not believe there is a city in Europe, of equal population, where there are fewer crimes, or attempts againſt the life, property, or peace of others; that he walks the ſtreets at all hours in the night, and never with any ſort of arms. The concluſion in favour of his countrymen is very fair; at the ſame time I muſt remark, that theſe very circumſtances, which he produces to ſhew that crimes ought to abound, might, perhaps with as much truth, be quoted as reaſons for their not being found. From the want of puniſhment and police may probably be drawn an important concluſion, that mankind are always beſt when not too much governed; that a great deal may ſafely be left to themſelves, to their own management, and to their own feelings; that law and regulation, neceſſary as they may be in ſome caſes, are apt to be carried much too far; that frequent puniſhments rather harden than deter offenders; and that a maze of laws, for the preſervation of the peace, with a ſwarm of magiſtrates to protect it, hath much ſtronger tendency to break than to ſecure it. It is fair to connect this circumſtance of compara-

tive freedom from crimes, with ſeven theatres for only one hundred and fifty thouſand people; and the admiſſion ſo cheap, that the loweſt of the people frequent them; more, perhaps, in favour of theatrical repreſentations than all that Rouſſeau's brilliant genius could ſay againſt them. At night to another theatre, that of the tragi-comedy, where a young actreſs, apparently not twenty, ſupported the principal ſerious part with ſuch juſtneſs of action, without exaggeration, and ſpoke this charming language with ſuch a clear articulation and expreſſion, as, for her age, was amazing.

The 6th. Another viſit to iſlands and manufactures, &c.

The 7th. My laſt day at Venice; I made, therefore, a gleaning of ſome ſights I had before neglected; and called once more on my friend —— ——, aſſuring him truly, that it would give me pleaſure to ſee him in England, or to be of any ſervice to him there. The *Corriere di Bologna* a covered barge, the only conveyance, ſets off to-night at eleven o'clock. I have taken my place, paid my money, and delivered my baggage; and as the quay from which the barge departs is conveniently near the opera-houſe, and *Il Barbero di buon Cuore* acted for the firſt night, I took my leave of Signore Petrillo's excellent inn, which deſerves every commendation, and went to the opera. I found it equal to what the *prova* had indicated; it is an inimitable performance; not only abounding with many very pleaſing airs, but the whole piece is agreeable, and does honour to the genius and taſte of Signore Martini. Swift, in one of his letters to Stella, after dining with lords Oxford and Bolingbroke, and going in the evening to ſome ſcrub, ſays, he hates to be a prince and a ſcoundrel the ſame day. I had to-night all this feeling with a vengeance. From the repreſentation of a pleaſing and elegant performance, the muſic of which was well adapted to ſtring one's feelings to a certain pitch, in clear uniſon with the pleaſure that ſparkled in ſo many eyes, and ſounded from ſo many hands—I ſtepped at once, in full contraſt, into the bark *Detto Corriere di Bologna*; a cabin about ten feet ſquare, round which ſat in ſilence, and the darkneſs viſible of a wretched lamp, a company, whoſe rolling eyes examined, without one word of reception, each paſſenger that entered. The wind howled, and the rain beat in at the hole left for entering. My feelings, that thrilled during the evening, were diſſipated in a moment, and the gloom of my boſom was ſoon in uniſon with that of the ſcene.

Of this voyage from Venice to Bologna, all the powers of language would fail me to give the idea I would wiſh to impreſs. The time I paſſed in it I rank among the moſt diſagreeable days I ever experienced, and by a thouſand degrees the worſt ſince I left England; yet I had no choice: the roads are ſo infamouſly bad, or rather ſo impracticable, that there are no *vetturini*; even thoſe whoſe fortune admits poſting, make this paſſage by water; and when I found that Monſieur de la Lande, ſecretary to the French ambaſſador at Turin, had made the ſame journey, in the ſame conveyance, and yet in his book ſays not a word againſt the accommodation, how was I to have divined, that it could prove ſo execrable? A little more thought, however, would have told me that it was too cheap to be good, the price, for the whole voyage of 125 miles, is only 30 *paoli* (17s. 6d.), for which you are boarded. After a day's ſpitting of a dozen people, in ten feet ſquare (enough to make a dog ſick), mattreſſes are ſpread on the ground, and you reſt on them as you can, packed almoſt like herrings in a barrel; they are then rolled up and tumbled under a bulk, without the leaſt attention which ſide is given you the night after; add to this the odours of various ſorts eaſy to imagine. At dinner, the cabin is the kitchen, and the *padrone* the cook, he takes ſnuff, wipes his noſe with his fingers, and the knife with his handkerchief, while he prepares the victuals, which he handles before you, till you are ſick of the idea of eating. But,

on

on changing the bark to one whoſe cabin was too ſmall to admit any cookery, he brought his ſteaks and ſauſages, rolled up in a paper, and that in his flag of abomination (as Smollett calls a continental handkerchief), which he ſpread on his knees as he ſat, opening the greaſy treaſure, for thoſe to eat out of his lap with their fingers, whoſe ſtomachs could bear ſuch a repaſt. Will an Engliſh reader believe that there were perſons preſent who ſubmitted, without a murmur, to ſuch a voyage, and who were beyond the common mercantile crews one meets with in a *vettura*?—ſome well dreſſed, with an appearance and converſation that betrayed nothing mean. I draw concluſions, operating ſtrongly againſt the private and domeſtic comforts of life, from ſuch public vehicles: this is the only one for thoſe who paſs to and from Venice, Bologna, Florence, Rome, and Naples, and of courſe muſt be exceedingly frequented; and there are no *voitures* by land to rival it. If theſe people were clean, decent, and comfortable at home, is it credible that they would ſubmit to ſuch a mode of travelling? The contraſt would ſhock them as it would Engliſhmen, who would move heaven and earth to eſtabliſh a better conveyance, at a higher price. The people who travel thus form the great maſs of a nation, if we except the poor; it is of little conſequence how the Cornari and the Moroſini live; they live probably like great lords in other countries; but the public and national proſperity is intimately connected with the comforts and accommodations of the lower claſſes, which appear in Italy to be, on compariſon with England, miſerably inferior. Their excellences, the ariſtocrats of Venice, do not travel thus; and as to the people, whether they go on their heads, or in the mud, is all one to the ſpirit of their government. For myſelf, I walked much of the journey, and eſpecially on the banks of the Po, for the better view of that great river, now rendered immenſe by the late dreadful floods, which have deluged ſo much of the country. Along the banks, which are high dykes, raiſed many feet againſt its depredations, there are matted huts at every hundred or two hundred yards, with men ſtationed, called *guardia di Po*, ready to aſſemble with their tools at a moment's warning, in caſe of a breach; they have fires all night. Soldiers alſo make the rounds, night and day, to ſee that the men are at their ſtations,—and to give aſſiſtance if wanted. There is a known and curious piece of roguery, againſt which much of this caution is bent; the miſchief of a breach is ſo great, that when the danger becomes very imminent, the farmers in the night, croſs the river in boats, in order to bore holes in the banks, to enable the water the eaſier to make a breach, that by giving it a direction contrary to that of their own lands, they may render themſelves ſecure. For this reaſon, the guards permit no navigation, except by privileged barks, like the *corrieri*, firing at all others that are ſeen on the river. It is now an immenſe body of water, twice, and in ſome places perhaps even thrice as broad as the Thames at London. As to the face of the country, from the Lagunes to Ferrara, it is every where nearly the ſame as what I have ſo often deſcribed; whether graſs or arable, laid out into rows of pollards, with vines trained to them, at various diſtances, but always near enough to give the whole the appearance of a wood, when viewed from the leaſt diſtance. It does not ſeem to want people, towns and villages being numerous; and there are all the ſigns of a conſiderable navigation; every village being a port, with abundance of barges, barks, boats, &c. Coffee-houſes remarkably abound in the Venetian dominions, at all towns, and even villages, where we paſſed, they are to be found, fortunately for me, as they were my reſource, to make amends for the dirty fingers and beaſtly handkerchief of our Signore Padrone. Before I entirely finiſh with Venice, I ſhall inſert a few circumſtances, with which I was favoured by an Italian, who reſided ſome time in that city, and had abilities that would not allow me to doubt of his capacity in forming a true

eſtimate of any political circumſtance, to which he directed his attention. His account of the principal nobility of the republic is ſuch as would explain much more than I have ſeen or heard in their dominions. He ſays, "the education of the great is the diſgrace of Venice. Men of the firſt families are not only ignorant to a degree ſhameful in ſo enlightened an age, but they are educated in a bad ton; with ill manners, from ideas that are ſuffered to be inſtilled by dependents, which do not quit them through life; fixing, from early habit, the taſte for bad company; while a pernicious indulgence exempts them from all learning; that this is ſo general, and is ſo extenſive in its influence, that, had the interior organization of this government been leſs admirable, it would, from this very cauſe, have mouldered to nothing long ago: that the pride, of which they are accuſed, is aſcribable equally to bad company and to ignorance; the firſt gives them vague and improper ideas of their own importance, and the ſecond inſpires them with reſerve, to conceal their want of that knowledge which others, and eſpecially foreigners, poſſeſs: that the ill effects of this bad education will be ſeen more and more; the governments of Europe being at preſent infinitely more enlightened than in times paſt; and improved conſiderably even in the laſt twenty years. There is of neceſſity, a ſtruggle among all nations, emulous to make the greateſt progreſs in uſeful knowledge, and to apply all knowledge to the moſt uſeful purpoſes; in ſuch a period, therefore (he added), any people who are ſtationary, and more particularly any government that is ſo, will be outſtripped in the great courſe by their competitors, and perhaps trampled on, like the monarchy of France, by thoſe in whom light hath taken the place of ignorance." Pity that the richeſt blood in European veins ſhould at preſent experience ſuch an education!

Here are about forty families, unqueſtionably the moſt ancient in Europe. All other countries, except Venice, have been conquered, or over-run, or ſo deſtroyed, that the oldeſt families may be dated comparatively from only modern periods; he who looks back to a well defined anceſtry, from the tenth and eleventh centuries, and who can thus trace his lineage ſeven or eight hundred years, is in every country reſpected for antiquity; of this ſtanding are the families of Bourbon, d'Eſté, Montmorency, Courtenaye, &c. which are commonly eſteemed the firſt in Europe: but they are not eſteemed ſo at Venice. Some of the Roman families, which, from the ravages of the Huns, took ſhelter in the iſles of Venice, and which were then conſiderable enough to be entruſted with the government of their country, yet remain, and are unqueſtionably the moſt ancient in Europe. De la Lande, from Freſdrotti, confines the electors of the firſt Doge to twelve—*Badoer*, *Contarini*, *Moroſini*, *Tiepolo*, *Michiel*, *Sanudo*, *Gradenigo*, *Memo*, *Falier*, *Dandolo*, *Barozzi*, and *Polano*, which is of late extinct. In the next claſs he places *Zuſtiniani*, *Cornaro*, *Bragadin*, and *Bembo*; then come the families *il ferrare del conſiglio*, *Querini*, *Dolfini*, *Soranzo*, *Zorai*, *Marcello*, *Sagredo*, *Zane*, and *Salomon*. But ſince Monſ. de la Lande wrote, they have publiſhed at Venice a *Dizionario ſtorico di Tutte le Venete Patrizie Famiglie*, 1780; compiled from a manuſcript in St. Mark's library; this work does not accord with the preceding table; I have extracted from it the following liſt:

Badoer; ſua origine con la republica.—Bollani; antichi tribuni.—Bragadin; nei piu rimoti ſecoli della republica.—Ceiſi; dagli antichi Marj di Roma, antichi tribuni.—Cioran; negli elettori del primo Doge.—Contarini; uno negli elettori del primo Doge.—Cornaro; dagli antichi Corneli di Roma, d'aprimiſſimi tempi tenuta in Venezia.—Emo; nacque colla medeſima republica, Foſcarini; Vennero 867 *; antichi tribuni.—Gradenigo; delle prime venute in Venezia.—Magno; dalla prima fondazion di Venezia; tribuni.—Marcello; pare, che non ſi poſſa metter in dubio, che queſta famiglia diſcenda dagli antichi Marcelli di Roma;*

antichi tribuni.—Michieli; antichiſſima di Venezia; gli elettori del primo Doge.—Mocenigo; delle prime venute in Venezia.—Molin; ſtabilita in Venezia 877; antichi tribuni.—Moroſini; rifugiti per le incurzioni di Attila; fra gli elettori del primo Doge, e antichi tribuni.—Da Moſta; Vennero 454 rifugiati per Attila.—Nani; Vennero in Venezia ſin dalla prima ſua fondazione; antichi tribuni.—Orio; rifugiati per Attila; antichi tribuni.—Piſani; dagli antichi Piſoni di Roma; dell'antico conſiglio.—Querini; elettori del primo Doge.—Sagredo; Vennero nel 485.—Salomon; trà le elettrici del primo Doge.—Sanudo; dei primi fondatori della città.—Semitecolo; ſin dal 843; antico conſiglio.—Soranzo, ſenza dubbio delle prime rifugite in Venezia; antichi tribuni.—Tiepolo, gli elettori del primo Doge: antichi tribuni.—Treviſan, Vennero per l'irruzione d'Attila.—Valier, rifugiti per le incurſione di Attila ſino dal 423; tribuni antichi.—Venier, Vennero per Attila; antichi tribuni.—Zane, antichiſſima famiglia di Venezia; antico conſiglio.—Zen, dei 12 elettori del primo Doge. Bembo, Coco, Dandolo, Falier, Foſcari, Gritti, Maliſpiero, Marini, Minio, Minotto, Moro, Muazzo, Nadal, Peſaro, Da Riva, Ruzini, Tron, Zuſto, all theſe *antichi tribuni.*

From the details of theſe families it appears, that many have an origin as old as Attila the Hun, who invaded Italy in 452. If all theſe families be allowed to date from that period, (and no reaſon appears againſt it) their origin may be traced to more than 1300 years. The election, however, of the firſt Doge, in 697, by the twelve heads of the republic, is one of the moſt authentic and the moſt noted acts in the eſtabliſhment of any government. To this undiſputed origin the preceding liſt aſſigns the families of Civran, Contarini, Michieli, Moroſini, Querini, Salomon, Tiepolo, and Zen, rejecting thus ſeveral families which have been commonly eſteemed the firſt in the republic, and which former writers have expreſsly ranked among the electors of the firſt Doge. The only families in which both liſts agree are Contarini, Michieli, Moroſini, and Tiepolo: whether the others were, or were not, electors of the Doge, there is no queſtion about their great antiquity; and it is equally certain that there are now actually at Venice from forty to fifty families which, in point of antiquity well aſcertained, exceed all that are to be found in the reſt of Europe.

And here I take leave of the Venetian lion; I am tired of it:—if the ſtate were to build a pig-ſtie, I believe they would decorate it with his figure. It is a beaſt of no merit;—for what is ferocity without humanity,—or courage without honour?—It wars only to deſtroy; and ſpreads its wings not to protect, but to cover, like the vulture of Mr. Sheridan, the prey that it devours. At Ferrara, the Padrone's buſineſs ſtopped him a whole day; but he pretended it was a want of oxen to draw the coaches, that carried us ten miles by land, from canal to canal. This was not amiſs, for it enabled me to ſee every thing in that town, which, however, does not contain much. The new part—new in compariſon with the reſt, was built by Hercules II. Duke of Ferrara, who has laid out and diſtributed the ſtreets and a ſquare in a manner that does honour to his memory. They are all of a fine breadth, well paved, with *trotoirs* of brick, every where defended by ſtone poſts. I have ſeen no city ſo regularly laid out, except Turin. The Palazzo of the Marcheſe di Villa is an object to examine; and at that ſpot there is a very advantageous view of two noble ſtreets. The Palazzo di Bentivoglio is another conſiderable building, with a vaſt garden, full of bad ſtatues; and even ſome of footmen, with laced hats and ſhoulder-knots, in a ſtyle fully as ridiculous as M. du Barrè's at Toulouze. In the cathedral, a fine Guercino; and a marriage of Cana, by Bonona, a Ferrareſe painter, at the Chartreuſe. I paid homage to the tomb of Arioſto, a genius of the firſt luſtre; ſince all modern ages have produced but three diſtinguiſhed epic poets, what a glory to Italy to have given birth to two of them! the wonder is greater, however,

however, that the third was not of the ſame country. From Ferrara to the canal, which leads to Bologna, the road is, without any idea of compariſon, the worſt in Europe, that pretends to be great and paſſable. It is the natural rich ſoil of a flat wet country, rendered deeper by the late heavy rains; ſeven horſes drew a coach about a mile and a half an hour. Making and mending are philoſophical experiments not tried here; and the country being incloſed, the hedges and ditches confine the carriages to poach through the mud of one direction, inſtead of many. I walked for the moſt part in the adjoining fields, the better to examine them. Arrived at Bologna at twelve o'clock at night.——125 miles.

The 12th. Deliver letters. I found Signore Bignami at home. He is a conſiderable merchant, who has attended to agriculture, ſenſible and intelligent. An Engliſh merchant, at the Three Moors, informing me, that Mr. Taylor, who was at Carlſrhue for ſome time, was now ſettled at Bologna, I determined to wait on him, being the gentleman of whoſe huſbandry, at Biſrons in Kent, I gave an account in my Eaſtern Tour. I accordingly went, in the evening, to Mr. Taylor's *converſazione*. He has handſome apartments in the Palazzo Zampieri, and lives here agreeably with his beautiful and amiable family; a finer progeny of daughters and ſons is hardly to be ſeen, or that forms a more pleaſing ſociety. As I did not know, till I got to Bologna, that Mr. Taylor had left the Court of Carlſrhue, I was eager to hear why he had quitted a ſituation which was ſo congenial with his love of agriculture. This gentleman, travelling in Germany, became known to the Margrave of Baden, where that enthuſiaſtic love of agriculture, which, for the good of mankind, ſome minds feel, induced him to take a farm of that prince. Thus was a gentleman, from the beſt cultivated part of Kent, fixed on a farm of five hundred acres in Germany. He carried his point, improved the farm, ſtaid four years, and would have continued to the infinite advantage of the country, if the miniſters of the Margrave had had as much underſtanding, and as liberal a mind as their maſter. I am inclined to believe that no man can ſucceed on the continent of Europe (unleſs under a prince with a character of ſuch decided energy as the late King of Pruſſia) provided he be really practical. He has no chance if he be not well furniſhed with the rubbiſh which is found in academies and ſocieties: give him a jargon of learning, the ſcience of names and words, letting things and practice go elſewhere, and he will then make his way, and be looked up to. To the opera, where there is nothing worth hearing or ſeeing, except only a young ſinger, Signora Nava, whoſe voice is one of the cleareſt and ſweeteſt tones I ever heard; ſhe has great powers, and will have, for ſhe is very young, great expreſſion. It was the *Theodoro rè di Corſica* of Paieſello.

The 13th. The *Pellegrino* and *St. Marco* being full, has fixed me in this brutal hole, *I Tre Maurretti* which is the only execrable inn I have been inn (in a city) ſince I entered Italy. It has every circumſtance that can render it deteſtable; dirt, negligence, filth, vermin, and impudence. You ſit, walk, eat, drink, and ſleep with equal inconvenience. A tour among the palaces and churches. The great collection of paintings in the Zampieri palace contains a few pieces of ſuch exquiſite merit, that they rivet the ſpectator by admiration. The St. Peter, of Guido; the Hagar, of Guercino; and the Dance, of Albano. Monſ. Cochin ſays, the Guido is not only a *chef d'œuvre*, but the fineſt picture in Italy, *enfin c'eſt un chef d'œuvre & le tableau le plus parfait, par la re-union de toutes les parties de la peinture qui ſoit en Italie.* It is certainly a moſt noble piece of two figures, but wants, of neceſſity, the poetry of a tale told by many. To pleaſe me, the Guercino, of which he ſays little more than its being *très beau*, has an expreſſion delicious, that works on a fine ſubject to a great effect: it is more nature than

than painting. Hagar's countenance ſpeaks a language that touches the heart; and the pathetic ſimplicity of the child is in uniſon with all the mother's feelings. The mellow warmth and tender ſoftneſs of the colouring of the Albano, with the ſweetneſs of the expreſſion, are inimitable. In the church of St. Giovanne in Monte, there is the famous St. Cecilia of Raphael, of which Sir Robert Strange has given ſo fine a print, and in which he has done ample juſtice to the original. The St. Agnes of Domenichino, in the church of that name, and Job on his throne, by Guido, at the Mendicanti, are two others that muſt be viſited. Dine with Signore Bignami; he is a conſiderable merchant, and therefore I need not ſtare at this hoſpitality in Italy; with great ſatisfaction I find that no minute is loſt in his company, as he is obliging enough to pardon the number of my enquiries. In the evening to Mr. Taylor's; this gentleman's diſcourſe is intereſting to my purſuit, for he has always had a great predilection for agriculture, and has practiſed it with intelligence and ſucceſs. The Marcheſe di Marefchotti, who is married to a very pretty Engliſh lady, preſent alſo; a ſenſible man, who ſeemed pleaſed with the opportunity of explaining to me ſeveral circumſtances, relative to tythes and taxation, that I was enquiring into. He is a ſingular inſtance at Bologna, of going into company with his wife, and conſequently ſuperſeding the neceſſity or want of a cicisbeo. He is regarded by his countrymen for this, pretty much as he would be if he walked on his head, inſtead of his feet. How ſtrangely doth it appear to them, that an Italian nobleman ſhould prefer the company of a woman he married from affection, and think there is any pleaſure when he embraces his children, in believing them his own! Here I met alſo the Baron de Rovrure, a French nobleman, and Madame la Marquiſe de Bouille, both in their way to Naples; they ſeem agreeable people. Mr. Taylor, and his two charming daughters, have apparently a pleaſing ſociety here. Theſe ladies ſpeak French and German like natives, and before they leave Italy will do the ſame with Italian; they paint agreeably, and have conſiderable muſical talents; thus accompliſhments will not be wanted to ſecond the graces they owe to the beneficence of nature. I had ſome information from Miſs Taylor, to-night, relative to the expences of houſekeeping, which will give an idea of the cheapneſs of Italy; premiſing (of which more in another place that the *paolo* is ſixpence, and that there are 10 baiocchi in it. As to beef, mutton, bread, &c they are all over Europe too nearly on a par to demand much attention; where meat is very fine, it is nominally dear; and where it is bad, it is called cheap: but the difference deſerves little notice. Mr. Taylor contracts with a *traiteur* for his table, nine in the parlour and five in the kitchen, 20 *paoli* a day for dinner; for ſupper he pays extra, and is ſupplied to his ſatisfaction—a proof, if any be wanted, of the cheapneſs of Bologna. It is remarkable that there is not the difference between the prices of any of the articles, and the ſame thing in England, that there is between the contracting prices, and the *ratio* with us, a few per cent. in the former, but ſome hundred per cent, in the latter; a ſure proof that dearneſs and cheapneſs of living does not depend on prices per pound, but on the modes of living. Every tavern-keeper, *traiteur*, or other contractor of any ſort in England, will have a price that ſhall give him a fortune in a few years; and ſervants, inſtead of ſubmitting to the œconomy which their maſters may think it neceſſary to eſtabliſh, will not live an hour with them if they are not permitted to devour them.

The 14th. with Signore Bignami and his family, to his country ſeat, about five miles from Bologna, on the road to Piſtoia; ſpend an agreeable day, entirely dedicated to farming. The houſe is handſome, and finely ſituated: the entertainment truly hoſpitable, and the information, given in a cool conſiderate walk, through every field of the

farm, ſuch as is little liable to error. A circumſtance at this country ſeat deſerves noting, as it marks the abundance of thieves: the chambers had the windows all ſhut ſo cloſe, and faſtened with ſo much attention, that I enquired the reaſon; and was anſwered, that if the greateſt care be not taken, thieves will break in, and plunder a houſe of every thing portable. The ſhutters, to both windows and doors, were inlaid with bars of iron, to prevent their being ſawn through. The concluſion we muſt draw from ſuch a circumſtance is certainly little favourable, at firſt ſight, to the lower claſſes, but that is always unjuſt, for they are ever what the police, law, and government of a country make them. In the evening, again at Mr. Taylor's; a houſe, in which no one will have the *entré*, and want the inclination. The Marcheſe Mareſchotti there, who had the goodneſs to continue his attentions to my enquiries, and to give me ſome valuable information: I had alſo the pleaſure of converſing, on the ſame ſubjects, with the Conte di Aldrovandi.

There is a room, at the *Tre Mauretti*, which, communicating with ſeveral apartments, the gueſts have it in common: among them was a young *Ballatrice*, waiting here for an Engliſhman, to attend her to Venice; ſhe was pretty and communicative; had ſome expenſive trinkets given her, to the amount of a conſiderable ſum, by her lover, who proved (for ſecrecy was not among her qualities) to be a rider, as we ſhould call him, to a manufacturing houſe in England. An Italian merchant preſent remarked, that the profit of the Engliſh on their manufactures, muſt be enormous, or they could not ſupport *commiſſarii* at ſuch an expence, ſome of whom travel in Italy poſt, from town to town, and, when arrived, amuſe themſelves, it is plain, with ſuch comforts as the good humour of the country throws in their way.

The 15th. The rencontre at Mr. Taylor's of the French gentleman, the Baron de Rovrure, and Madame de Bouille, has been productive of an engagement to travel together to Florence, with Signore Grimaldi, and Mr. Stewart, a Scotch gentleman *, juſt arrived from Geneva, and going alſo to Florence. We ſet off in three *vetture* this morning. The country from Bologna to Florence is all mountainous; moſt of it poor and barren, with ſhabby, ragged, ill preſerved wood, ſpotted with a weak and ſtraggling cultivation. Houſes are ſcattered over moſt of it, but very thinly. We dined at Loiano, much in the ſtyle of hogs; they ſpread for us a cloth, that had loſt, by the ſnuff and greaſy fingers of *vetturini*, all that once was white; our repaſt was black rice broth, that would not have diſgraced the philoſophy of Lycurgus, liver fried in rancid oil, and cold cabbage, the remnant of the preceding day. We pleaded hard for ſauſage, eggs, or good bread and onions, but in vain. We laid, not ſlept in our clothes at Covigliano, hoping, not without fears, to eſcape the itch. Such accommodations, on ſuch a road, are really incredible. It is certainly one of the moſt frequented that is to be found in Europe. Whether you go to Florence, Rome, and Naples, by Parma, Milan, or Venice; that is, from all Lombardy, as well as from France, Spain, England, Germany, and all the north, you paſs by this route, conſequently one would expect, at every poſt, a tolerably good inn, to catch the perſons whom accident, buſineſs, or any other derangement of plan might induce to ſtop between Bologna and Florence. The only place poſſible to ſleep at, with comfort, is Maſchere, about forty miles from Bologna, but, for travellers who go any other way than poſt, forty miles are no diviſion of ſixty-four. If the road were in England, with a tenth of the traffic, there would be an excellent inn at every four or five miles, to receive travellers properly, at whatever diſtance their accidental departure made moſt convenient: but England and Italy have a gulph between them

* Travelling with a young gentleman, a Mr. Kinloch.

in the comforts of life, much wider than the channel that parts Dover and Calais.——27 miles.

The 16th. On entering Tuſcany, our baggage was examined, and plumbed for Florence; the firſt moment I ſet foot in this country, therefore, I find one groſs error of the œconomiſtes, who have repeated, from one another, in at leaſt twenty performances, that the grand Duke had adopted their plan, and united all taxes in one, upon the net produce of land. Having croſſed the higheſt ridge of the Appenines, for ſeveral miles in the clouds, and therefore ſeeing no proſpect, deſcended at Maſchere, for a while, in a better region; from the inn, the view is rich and fine. We noted here a wonderful improvement in the figure and beauty of the ſex; the countrywomen are handſome, and their dreſs is very becoming; with jackets, the ſleeves puckered and tied in puffs, with coloured ribbons; broad hats, ſomething like thoſe worn by ladies in England with riding habits; their complexions are good, and their eyes fine, large, and expreſſive. We reached Florence, with juſt light enough to admire the number of white houſes ſpread thickly every where over the mountains that ſurround the city. But before we enter, I muſt ſay a word or two of my French fellow travellers: Monſ. le Baron is an agreeable polite man, not deficient in the power to make obſervations that become a perſon of ſenſe: the life of Madame de Bouille would, if well written, form an entertaining romance; ſhe went, early in the laſt war, to St. Domingo with her huſband, who had a conſiderable property there; and on her return ſhe was taken in a French frigate, by an Engliſh one, after a very ſmart engagement of three hours, and carried into Kinſale, whence ſhe went to Dublin, and to London: this is an outline which ſhe has filled up very agreeably with many incidents, which have kept her in perpetual motion; the preſent troubles in France have, I ſuppoſe, added her and the Baron to the infinite number of other French travellers, who ſwarm, to an incredible degree, every where in Italy. She is lively, has much converſation, has ſeen a good deal of the world, and makes an agreeable *compagnon de voyage*.——37 miles.

The 17th. Laſt night, on arriving here, we found the *Aquila Nera*, and *Vanini*'s ſo full, that we could not get chambers; and the great Mr. Meggot looked into our cabriolets to examine us, before he would give an anſwer, pretending, that his were beſpoken; and then aſſured us, as we had no air that promiſed good plucking, that his were engaged. At the *Scudi di Francia*, where there are many excellent and well furniſhed apartments, we found all we wanted, but dearer than common, ten *paoli* a head a-day; our merchant leaves us to-morrow morning, for Leghorn, and the reſt of the company divide, to find lodgings. Waited on Monſ. de Streineſberg, the Grand duke's private ſecretary, for whom I had letters: I am out of luck, for he is immerſed in buſineſs and engagements, as the court goes to Piſa to-morrow morning, for the winter. This, I ſuppoſe, is of no conſequence to me, for what court is there in the world that would give or receive information from a farmer? The objects for which I travel are of another complexion from thoſe which ſmooth our paths in a court. And yet the Grand Duke has the reputation of being, in reſpect to the objects of his attention, the wiſeſt prince in Europe. So much for the ſovereign of this country—let me but find ſome good farmers in it, and I ſhall not be diſcontented.

The 18th. Fixed this morning in lodgings (*del Sarte Ingleſe via dei Foſſi,*) with the Marchioneſs, the Baron, and Mr. Stewart. My friend, Profeſſor Symonds, had given me a letter to his Excellency Philippo Neri, who I found was dead; but hearing that his brother, Signore Neri, was not only living, but preſident of the Georgofili Society, I waited on him, and gave him the letter that was deſigned for his late brother; he received me politely, and recollecting the name of Young, being quoted by the Marquis

de Caſſaux, in his "Mechaniſm des Societes," and being informed that I was the perſon, remarked, that this ingenious writer had made ſome uſe of my calculations, to found his theory of the national debt of England; a very curious ſubject, on which he ſhould like much to converſe with me: and aſked, if I looked upon that debt as ſo harmleſs? I told him, that I thought Monſ. de Caſſaux's book full of original and ingenious remarks, and many important ones, particularly his condemnation of the colonizing ſyſtem; but that as to the national debt of England, it originated in the knavery of thoſe who borrowed, and in the folly of thoſe who lent; perpetuating taxes that took money from induſtrious people, in order to give it to idle ones. That the liberty of England enabled it to flouriſh beyond that of any other ſociety in the world, not becauſe it had a national debt, but in ſpite of ſo great an evil.—Well, Sir, he replied, I have juſt the idea of it that you have, and I could not conceive how a country could pay eight or nine millions of guineas a year, in intereſt, without being the weaker and poorer. He then enquired into my plan, commended highly the object of my journey, which, he was pleaſed to ſay, had ſo little reſemblance to that of the great maſs of my countrymen, that he hoped I met with no impediments in gaining the information I wiſhed; and added, that he was very ſorry he was going to Piſa, or he ſhould have been happy in procuring me all in his power, though he was no practical farmer. Signore Neri appears to be well informed, ſenſible, and judicious; has a large collection of books, on uſeful ſubjects, particularly the various branches of political œconomy, which he ſhews, by his converſation, to have conſulted with effect.

After all I had read and heard of the Venus of Medicis, and the numberleſs caſts I had ſeen of it, which have made me often wonder at deſcriptions of the original, I was eager to hurry to the *tribuna*, for a view of the dangerous goddeſs. It is not eaſy to ſpeak of ſuch divine beauty, with any ſobriety of language; nor without hyperbole to expreſs one's admiration, when felt with any degree of enthuſiaſm; and who but muſt feel admiration at the talents of the artiſt, that thus almoſt animated marble? If we ſuppoſe an original, beautiful as this ſtatue, and doubly animated, not with life only, but with a paſſion for ſome favoured lover, the marble of Cleomenes is not more inferior to ſuch life, in the eyes of ſuch a lover, than all the caſts I have ſeen of this celebrated ſtatue are to the inimitable original. You may view it till the unſteady eye doubts the truth of its own ſenſation: the cold marble ſeems to acquire the warmth of nature, and promiſes to yield to the impreſſion of one's hand. Nothing in painting ſo miraculous as this. A ſure proof of the rare merit of this wonderful production is, its exceeding, in truth of repreſentation, every idea which is previouſly formed; the reality of the chiſſel goes beyond the expectancy of imagination; the viſions of the fancy may play in fields of creation, may people them with nymphs of more than human beauty; but to imagine life thus to be faſhioned from ſtone; that the imitation ſhall exceed, in perfection, all that common nature has to offer, is beyond the compaſs of what ordinary minds have a power of conceiving. In the ſame apartment there are other ſtatues, but, in the preſence of Venus, who is it that can regard them? They are, however, ſome of the fineſt in the world, and muſt be reſerved for another day. Among the pictures, which indeed form a noble collection, my eyes were rivetted on the portrait of Julius II. by Raphael, which, if I poſſeſſed, I would not give for the St. John, the favourite idea he repeated ſo often. The colours have, in this piece, given more life to canvaſs, than northern eyes have been accuſtomed to acknowledge. But the Titian!—enough of Venus;—at the ſame moment to animate marble, and breathe on canvaſs, is too much. By huſbanding the luxury of the ſight, let us keep the eye from being ſatiated with ſuch a parade of charms: retire to repoſe on the inſipidity of common objects, and return another day, to gaze with

with freſh admiration. In the afternoon, by appointment, to Signore Prepoſito Laſtri, author of the *Corſo d'Agricoltura*, and other much eſteemed works, to whom I had letters. He was to have carried me to Signore Zucchino, director of the œconomical garden, for whom alſo I had recommendations; I hoped to eſcape ſeeing this garden—and the rain ſeconded my wiſhes, for it would not allow us to ſtir; and that gentleman coming to Signore Laſtri's, I had the pleaſure of a converſation on our favourite topic. Signore Zucchino ſeems an animated character, ſpeaks of agriculture in a ſtyle that gives me a good opinion of his purſuits; made me very friendly offers of whatever aſſiſtance was in his power, during my ſtay at Florence, and appointed another day for viewing the œconomical garden. At night to the opera, the *Trame del Luſſo*, of Cimaroſa; the muſic as good as the ſinging bad, and the dancing execrable. An Engliſh gentleman, of the name of Harrington (the younger,) whom I had met at Mr. Taylor's, at Bologna, entering into converſation, mentioned, among other topics, that the Margrave of Anſpach, who is here with Lady Craven, wiſhed to know me perſonally, in order to ſpeak to me on the ſubject of Spaniſh ſheep, his highneſs having imported them to Anſpach. I replied, that, on a farming topic, I ſhould be happy in the converſation of any prince, who loved the ſubject enough to import a better breed. The father ſoon after joining us, and probably having been told, by his ſon, what had paſſed, obſerved to me, that the Margrave was very fond of agriculture, and had made great improvements; adding, "that if I wanted to be introduced to him, he would introduce me." This was another buſineſs;—my expreſſing a deſire to be preſented to a ſovereign prince, not at his own court, appeared to be an awkward intruſion; for no idea could be more diſguſtful to me, than that of puſhing myſelf into ſuch company. I replied, therefore, that if it were the deſire of the Margrave to have any converſation with me, and he would inform me of it, in any way he thought proper, I would certainly pay my reſpects to him, with great readineſs. The Margrave was at the opera; Mr. Harrington quitted me, as if to go to him. I ſuppoſe the converſation was miſunderſtood, for Lady Craven does not ſeem, by her book, to be much of a farmer.

The 19th. Call on Signore Tartini, ſecretary to the royal academy Georgofili, and on Lord Hervey, our miniſter here; both abſent. Another turn in the gallery brought a repetition of that pleaſure which is there to be reaped, in the exuberance of a plentiful harveſt. The woman, lying on a bed, by Titian, is probably the fineſt picture, of one figure, that is to be ſeen in the world. A fatyr and nymph, by Hannibal Caracci; a Correggio; a Carlo Dolci. Among the ſtatues—the Apollo, the Wreſtlers, the Whetter, as it is called, the Venus riſing from the bath, the Ganimede. What an amazing collection! I have been many years amuſing myſelf with looking at the ſtatues in England! very harmleſsly:—my pleaſure of that kind is at end. In ſpite of every effort to the contrary, one cannot (unleſs an artiſt, who views not for pleaſure but as a critic) help forming eternal compariſons, and viewing very coldly pieces that may perhaps have merit, but are inferior to others which have made a deep impreſſion. But the paintings and ſtatues in this gallery are in ſuch profuſion, that, to view them with an attention adequate to their merit, one ought to walk here two hours a day for ſix months. In the afternoon, waited on Signore Fabbroni, author of ſome works on agriculture, that have rendered him very well known, particularly a little treatiſe in French, entituled, *Reflexions ſur l'etat actuel de l'Agriculture*," printed at Paris in 1780, which is one of the beſt applications of the modern diſcoveries in natural philoſophy to agriculture, that has been attempted; it is a work of conſiderable merit. I had two hours very agreeable and inſtructive converſation with him: he is lively, has great fire and vivacity, and that va-

luable talent of thinking for himſelf, one of the beſt qualities a man can poſſeſs; without which, we are little better than horſes in a team, trammelled to follow one another. He is very well inſtructed [illegible] the politics of Tuſcany, connected with agriculture.

The 20th. Early in the morning, by appointment to Signore Tartini, to whoſe attentions I am obliged, not only for a converſation on my favourite ſubject, but for ſome books of his writing, which he preſented me with; among others, the *Giornale d'Agricoltura di Firenze*," which was dropped for want of encouragement. He accompanied me to Signore Laſtri's, and then we went together to the œconomical garden of Signore Zucchino, for which the Grand Duke allows three hundred crowns a-year, beſides ſuch labour as is wanted; and the profeſſor reads lectures in ſummer. The eſtabliſhment of ſuch a garden does honour to a ſovereign; becauſe it marks an attention to objects of importance. But it is greatly to be regretted they do not go one ſtep further, and, inſtead of a garden, have a farm of not leſs than three hundred Engliſh acres; moſt of them are poſſeſſors of farms; a well ſituated one might eaſily be choſen, and the whole conducted at an expence that would be amply repaid by the practical benefits flowing from it. Signore Zucchino's garden is much cleaner, and in neater order than any other I have ſeen in Italy: but it is not eaſy to form experiments in a few acres, that are applicable to the improvement of a national agriculture. He is an active, animated character, attached to the purſuit (no ſmall merit in Italy,) and would make a very good uſe of his time, if the Grand Duke would do with him as the King of Naples has done by his friend Signore Balſamo—ſend him to practiſe in England. I told him ſo, and he liked the idea very much. We had ſome converſation concerning Signore Balſamo, agreeing that he had conſiderable talents, and great vivacity of character. I regretted that he was to ſtay only a year in England; but admitted, that there were few men who could make ſo good a uſe of ſo ſhort a period. Signore Zucchino ſhewed me the MS. account of my farm, which Signore Balſamo had ſent him*. A profeſſor of agriculture in Sicily, being ſent by his ſovereign, and wiſely ſent, to England for inſtruction in agriculture, appears to me to be an epoch in the hiſtory of the human mind. From that iſland, the moſt celebrated of all antiquity for fruitfulneſs and cultivation, on whoſe exuberance its neighbours depended for their bread—and whoſe practice the greateſt nations conſidered as the moſt worthy of imitation: at a period too when we were in the woods, contemned for barbarity, and hardly conſidered as worth the trouble of conquering. What has effected ſo enormous a change? Two words explain it, we are become free, and Sicily enſlaved. We were joined, at the garden, by my good friend from Milan, the Abbate Amoretti, a new circumſtance of good fortune for me. To-day, in my walk in the gallery, I had ſome converſation with Signore Adamo Fabbroni, brother of the gentleman I mentioned before, and author alſo of ſome diſſertations on agriculture; particularly *Sopra il queſito indicare le vere teori delle ſtime dei terreni*" from which I inſerted an extract in the Annals of Agriculture,—alſo a Journal of Agriculture, publiſhed at Perugia, where he reſided ſeven years; but as it did not ſucceed for more than three, he dropped it. It is remarkable how many writers on this ſubject there are at preſent at Florence: the two Fabbronis, Laſtri, Zucchino, Targioni, Paoletti, whom I am to viſit in the country, attended by Signore Amoretti; they ſay he is the moſt practical of all, having reſided conſtantly on his farm. I ſpent an hour very agreeably, contemplating one ſtatue to-day, namely, Bandinelli's copy of the Laocoon, which is a pro-

* I fixed him in my neighbourhood in Suffolk.

duction that does honour to modern ages; I did not want this copy to remind me of another moſt celebrated one, and of the many very agreeable and inſtructive hours I have ſpent with its noble owner the Earl of Orford.

The 21ſt. Signore Tartini had engaged the Abbate Amoretti, and myſelf, to go this day to his country-ſeat, but it rained inceſſantly. The climate of Italy is ſuch as will not make many men in love with it; on my conſcience, I think that of England infinitely preferable. If there were not great powers of evaporation, it would be uninhabitable. It has rained, more or leſs, for five weeks paſt; and more, I ſhould conceive, has fallen, than in England in a year. In the evening to the converſazione of Signore Fabbroni, where I met Signore Pella, director of the gallery; Signore Gaietano Rinaldi, director of the poſts; another gentleman, adminiſtrator of the Grand Duke's domains, I forget his name; the Abbate Amoretti, &c. It gave me pleaſure to find, that the company did not aſſemble in order to converſe on the trivial nonſenſe of common topics, like ſo many coteries in all countries. They very readily joined in the diſcuſſions I had with Signore Fabbroni; and Signora Fabbroni herſelf, who has an excellent underſtanding, did the ſame. By the way, this lady is young, handſome, and well made; if Titian were alive, he might form from her a Venus not inferior to thoſe he has immortalized on his canvaſs; for it is evident, that his originals were real, and not ideal beauty. Signora Fabbroni is here, but where is Titian to be found?

The 22d. In the forenoon to the converſazione of the ſenator Marcheſe Ginori, where were aſſembled ſome of the letterati, &c. of Florence; the Cavaliere Fontana, ſo well known in England for his eudiometrical experiments, Zucchino Laſtri, Amoretti, the Marcheſe Pacci, who has a reputation here for his knowledge of rural affairs, Signore Pella, &c. The converſazioni are commonly in an evening, but the Marcheſe Ginori's is regularly once a week in a morning; this nobleman received me very politely: indeed he is famous for his attention to every object that is really of importance; converſes rationally on agriculture, and has himſelf, many years ago, eſtabliſhed, in the neighbourhood of Florence, one of the moſt conſiderable manufactories of porcelain that is to be found in Italy. Dine with his Majeſty's envoy extraordinary, Lord Hervey, with a great party of Engliſh; among whom were Lord and Lady Elcho, and Mr. and Miſs Charteris, Lord Hume, Mr. and Mrs. Beckford, Mr. Digby, Mr. Tempeſt, Dr. Cleghorn, profeſſor of hiſtory at St. Andrew's, who travels with Lord Hume, with ten or a dozen others. I had the honour of being known to Lord and Lady Hervey in Suffolk, ſo they were not new faces to me; of the others, I had never ſeen any thing: the company was too numerous for a converſation, from which much was to be gained. I ſat by the fellow of an Engliſh college; and my heels had more converſation with his ſword than I had with its owner: when a man begins every ſentence with a cardinal, a prince, or a celebrated beauty, I generally find myſelf in too good company; but Miſs Charteris, who ſeems a natural character, and was at her eaſe, conſoled me on the other ſide. At this dinner (which, by the way, was a ſplendid one), I was, according to a cuſtom that rarely fails the worſt dreſſed man in the company; but I was clean, and as quietly in repoſe on that head, as if I had been either fine or elegant. The time was, when this ſingle circumſtance would have made me out of countenance, and uneaſy. Thank my ſtars, I have buried that folly. I have but a poor opinion of Quin, for declaring that he could not afford to go plain: he was rich enough, in wit, to have worn his breeches on his head, if he had pleaſed; but a man like myſelf, without the talent of converſation, before he has well arranged his feelings, finds relief in a good coat or a diamond ring. Lord Hervey, in the moſt friendly manner, deſired I would make his table my own, while I was at Florence,—that I ſhould always find a cover, at three o'clock, for dinners are not

not the cuſtom here, and you will very rarely find me from home. This explains the Florentine mode of living; at Milan, great dinners are perpetual, here the nobility never give them. I have no idea of a ſociety worth a farthing, where it is not the cuſtom to dine with one another. Their converſazioni are good ideas, when there are no cards,—but much inferior to what one has at a dinner for a ſelect party. In England, without this, there would be no converſation; and the French cuſtom, of riſing immediately after it, which is that alſo of Italy, deſtroys, relatively to this object, the beſt hour in the whole day.

The 23d. To the gallery, where the horrible tale of Niobe and her children is told ſo terribly well in ſtone, as to raiſe in the ſpectator's boſom all the powers of the pathetic. The action of the miſerable mother ſhielding the laſt of her children againſt the murdering ſhafts of Apollo, is inimitable; and the figure of that youngeſt of the children, perfection. The two figures, which ſtrike me moſt, are the ſon who has gathered his drapery on his left arm, and the companion, a daughter, in the oppoſite corner. The expreſſion of his face is in the higheſt perfection, and the attitude, and whole figure, though much repaired, incomparable. The daughter has gathered her drapery in one hand, behind her, to accelerate her flight; ſhe moves againſt the wind, and nothing can be finer than the poſition and motion of the body, appearing through the drapery. There are others of the group alſo, of the greateſt force and fire of attitude; and I am happy not to be a critic inſtructed enough to find, as Monſ. de la Lande ſays, that the greateſt part of the figures are bad. They certainly are not equal; they are the work of Scopas, a Greek ſculptor. Dine with Lord Elcho, at Meggot's hotel; Lord Hume, Mr. Tempeſt, Mr. Tyrrhit, as well as Lord Elcho's family and Dr. Cleghorn, preſent: ſome agreeable converſation; the young perſons have engaged in ſport to walk on foot to Rome; right—I like that. If the Italians be curious in novelty of character, the paſſing Engliſh are well framed to give it.

The 24th. In the morning, with Abbate Amoretti, and Signore Zucchino to the porcelain manufacture of the Marcheſe Ginori, four miles to the north of Florence. It is ſaid to be in a flouriſhing ſtate, and the appearance of things anſwers the deſcription. It is a good fabric, and many of the forms and the deſigns are elegant. They work caſts of all the antique ſtatues and bronzes, ſome of which are well executed. Their plates are a zechin each (9s.) and a complete ſervice, for twelve covers, 107 zechins. To the Marcheſe Martelli's villa; a very handſome reſidence. This nobleman is a friend of Signore Zucchino, and, underſtanding our intention, of making it a farming day as well as a manufacturing one, ordered a dinner to be prepared, and his factor to attend for giving information, apologizing for his own abſence, on account of a previous engagement. We found a very handſome repaſt; too much for the occaſion:—and we drank—*alla Ingleſe*, ſucceſs to the plough! in excellent wine. The factor then conducted us over the farm: he is an intelligent man, and anſwered my numerous enquiries, apparently with conſiderable knowledge of the ſubject. Returned at night to Florence.

The 25th. Early in the morning, with Signore Amoretti, to Villa Magna, ſeven miles to the ſouth of Florence, to Signore Paoletti; this gentleman, curé of that pariſh, had been mentioned to me as the moſt practical writer on agriculture, in this part of Italy, having reſided always in the country, and with the reputation of being an excellent farmer. We found him at home, and paſſed a very inſtructive day, viewing his farm, and receiving much information. But I muſt note, that to this expreſſion, farm, muſt not be annexed the Engliſh idea; for Signore Paoletti's conſiſts of three poderi, that is, of three houſes, each with a farmer and his family, *alla metà*, who cultivate

tivate the ground, and have half the produce. It is unneceſſary to obſerve, that whenever this is the caſe, the common huſbandry, good or bad, muſt be purſued. It will ſurpriſe my Engliſh readers to find, that the moſt practical writer at Florence, of great reputation, and very deſervedly ſo, has no other than a *metayer* farm. But let it not be thought the leaſt reflection on Signore Paoletti, ſince he claſſes in this reſpect, with his ſovereign, whoſe farms are in the ſame regimen. Signore Poletti's maples for vines appeared to be trained with much more attention than common in Tuſcany, and his olives were in good order. This day has given me a ſpecimen of the winter climate of Italy; I never felt ſuch a cold piercing wind in England. Some ſnow fell; and I could ſcarcely keep myſelf from freezing, by walking four or five miles an hour. All water not in motion from its current or the wind, was ice; and the icicles, from the dripping ſprings in the hills, were two feet long. In England, when a fierce N. E. wind blows in a ſharp froſt, we have ſuch weather; but, for the month of November, I believe ſuch a day has not been felt in England ſince its creation. The proviſion of the Florentines againſt ſuch weather is truly ridiculous: they have not chimnies in more than half the rooms of common houſes; and thoſe they do not uſe; not becauſe they are not cold, for they go ſhivering about, with chattering teeth, with an idea of warmth, from a few wood aſhes or embers in an earthen pan; and another contrivance for their feet to reſt upon. Wood is very dear, therefore this miſerable ſuccedaneum is for œconomy. Thank God for the coal fires of England, with a climate leſs ſevere by half than that of Italy! I would have all nations love their country; but there are few more worthy of ſuch affection than our bleſſed iſle, from which no one will ever travel, but to return with feelings freſh ſtrung for pleaſure, and a capacity renovated by a thouſand compariſons for the enjoyment of it.

The 26. To the Palazzo Pitti. I have often read about ideal grace in painting, which I never well comprehended, till I ſaw the Madonna della Sedia of Raphael. I do not think either of the two figures, but particularly the child, is ſtrictly in nature; yet there is ſomething that goes apparently beyond it in their expreſſion; and as paſſion and emotion are out of the queſtion, it is to be reſolved into ideal grace. The air of the virgin's head, and the language of the infant's eyes, are not eaſily transfuſed by copyiſts. A group of four men at a table, by Rubens, which, for force and vigour of the expreſſion of nature, is admirable. A portrait of Paul III. by Titian, and of a Medicis, by Raphael. A virgin, Jeſus, and St. John, by Rubens, in which the expreſſion of the children is hardly credible. A Magdalen, and portrait of a woman in a ſcarlet habit, by Titian. A copy of Corregio's holy family, at Parma, by Barrocio Cataline, a copy of Salvator Roſa, by Nicolo Caſſalve; and laſt, not leaſt, a marine view, by Salvator. —But to enumerate ſuch a vaſt profuſion of fine pieces, in ſo many ſplendid apartments, is impoſſible; for few ſovereigns have a finer palace, or better furniſhed. Tables inlaid, and curioſities, both here and at the gallery, abound, that deſerve examination, to mark the perfection to which theſe arts have been carried, in a country where you do not find, in common life, a door to open without wounding your knuckles, or a window that ſhuts well enough to exclude the Appenine ſnows. The gardens of this palace contain ground that Brown would have made delicious, and many fine things that itineraries, guides, and travels dwell amply on.

The 27th. To the palace Poggio Imperiale, a country-ſeat of the grand Duke's, only a mile from Florence, which is an excellent houſe, of good and well proportioned rooms, neatly fitted up and furniſhed, with an air of comfort without magnificence, except in the article beds, which are below par. There is a fine veſtibule and ſaloon, that, in hot weather, muſt be very pleaſant; but our party were frozen through all the

the houſe. Lord Hervey's rooms are warm, from carpets and good fires; but thoſe are the only ones I have ſeen here. We have a fine clear blue ſky and a bright ſun, with a ſharp froſt and a cutting N. E. wind, that brings all the ſnow of the Alps, of Hungary, Poland, Ruſſia, and the frozen ocean to one's ſenſation. You have a ſun that excites perſpiration, if you move faſt; and a wind that drives ice and ſnow to your vitals. And this is Italy, celebrated by ſo many haſty writers for its delicious climate! To-day, on returning home, we met many carts loaded with ice, which I found, upon meaſure, to be four inches thick; and we are here between latitude 43, and 44. The green peaſe in December and January, in Spain, ſhew plainly the ſuperiority of that climate, which is in the ſame latitude. The magnitude and ſubſtantial ſolidity with which the Palazzo Ricardi was built, by a merchant of the Florentine republic, is aſtoniſhing; we have, in the north of Europe (now the moſt commercial part of the globe), no idea of merchants being able to raiſe ſuch edifices as theſe. The Palazzo Pitti was another inſtance; but as it ruined its maſter, it deſerves not to be mentioned in this view; and there are at Florence many others, with ſuch a profuſion of churches, that they mark out the ſame marvellous influx of wealth, ariſing from trade. To a mind that has the leaſt turn after philoſophical inquiry, reading modern hiſtory is generally the moſt tormenting employment that a man can have; one is plagued with the actions of a deteſtable ſet of men, called conquerors, heroes, and great generals; and we wade through pages loaded with military details; but when you want to know the progreſs of agriculture, of commerce, and induſtry, their effect in different ages and nations on each other—the wealth that reſulted—the diviſion of that wealth—its employment—and the manners it produced—all is a blank. Voltaire ſet an example, but how has it been followed? Here is a cieling of a noble ſaloon, painted by Luca Giordano, repreſenting the progreſs of human life. The invention and poetry of this piece are great, and the execution ſuch as muſt pleaſe every one. The library is rich; I was particularly ſtruck with one of the rooms that contains the books, having a gallery for the convenience of reaching them, without any diſagreeable effect to the eye. In England we have many apartments, the beauty of which is ruined by theſe galleries: this is thirty-ſix feet by twenty-four, within the caſes, well lighted by one moderate window; and is ſo pleaſing a room, that if I were to build a library, I would imitate it exactly. After viſiting the gallery, and the Palazzo Pitti, we are naurally nice and faſtidious,—yet in the Palazzo Ricardi are ſome paintings that may be viewed with pleaſure. In the evening to the converſazione of Signore Fabbroni; the aſſembly merits the name; for ſome of the beſt inſtructed people at Florence meet there, and diſcuſs topics of importance. Signore Fabbroni is not only an œconomiſte, but a friend to the Tuſcan mode of letting farms *alla metà*, which he thinks is the beſt for the peaſants; his abilities are great; but facts are too ſtubborn for him.

The 29th. Churches, palaces, &c. In the afternoon to St. Firenze, to hear an oratorio. At night to a concert, given by a rich Jew on his wedding: a ſolo on the violin, by Nardini.——Crouds—candles—ice—fruits—heat—and—ſo forth.

The 30th. To Signore Fabbroni, who is ſecond in command under il Cavaliere Fontana, in the whole muſeum of the Grand Duke; he ſhewed me, and our party, the cabinets of natural hiſtory, anatomy, machines, pneumatics, magnetiſm, optics, &c. which are ranked among the fineſt collections in the world; and, for arrangement, or rather exhibition, exceed all of them; but note, no chamber for agriculture; no collection of machines, relative to that firſt of arts; no mechanics, of great talents or abilities, employed in improving, eaſing, and ſimplifying the common tools uſed by the huſband-

bandman, or inventing new ones, to add to his forces, and to leſſen the expence of his efforts! Is not this an object as important as magnetiſm, optics, or aſtronomy? Or rather, is it not ſo infinitely ſuperior, as to leave a compariſon abſurd? Where am I to travel, to find agricultural eſtabliſhments, on a ſcale that ſhall not move contempt? If I find none ſuch in the dominions of a prince reputed the wiſeſt in Europe, where am I to go for them?

Our Annual Regiſter gave ſuch an account, a few years paſt, of the new regulations of the Grand Duke, in relation to burials, that I have been anxious to know the truth, by ſuch inquiries, on all hands, as would give me not the letter of the law only, but the practice of it. The fact, in the above-mentioned publication, was exaggerated. The bodies of all who die in a day are carried in the night, on a bier, in a linen covering (and not tumbled naked into a common cart), to the church, but without any lights or ſinging; there they receive benediction; thence they are moved to a houſe, prepared on purpoſe, where the bodies are laid, covered, on a marble platform, and a *voiture*, made for that uſe, removes them to the cemetery, at a diſtance from the city, where they are buried, without diſtinction, very deep, not more than two in a grave, but no coffins uſed. All perſons, of whatever rank, are bound to ſubmit to this law, except the Archbiſhop, and women of religious orders. This is the regulation and the practice; and I ſhall freely ſay, that I condemn it, as an outrage on the common feelings of mankind; chiefly, becauſe it is an unneceſſary outrage, from which no uſe whatever flows. To prohibit lights, ſinging, proceſſions, and mummery of that ſort, was rational; but are not individuals to dreſs, and incaſe the dead bodies, in whatever manner they pleaſe? Why are they not permitted to ſend them, if they chuſe, privately into the country, to ſome other burying place, where they may reſt with fathers, mothers, and other connections? Prejudices, bearing on this point, may be, if you pleaſe, ridiculous; but gratifying them, though certainly of no benefit to the dead, is, however, a conſolation to the living, at a moment when conſolation is moſt wanted, in the hour of grief and miſery. Why is the impaſſioned and ſtill loving huſband, or the tender and feeling boſom of the father, to be denied the laſt rites to the corpſe of a wife or a daughter, eſpecially when ſuch rites are neither injurious nor inconvenient to ſociety? The regulations of the Grand Duke are, in part, entirely rational,—and that part not in the leaſt inconſiſtent with the conſolation to be derived from a relaxation in ſome other points. But, in the name of common ſenſe, why admit exceptions? Why is the Archbiſhop to have this favour? Why the religious? This is abſolutely deſtructive of the principle on which the whole is founded; for it admits the force of thoſe prejudices I have touched on, and deems exemption from their tie as a favour! It is declaring ſuch feelings follies, too abſurd to be indulged, and, in the ſame breath, aſſigning the indulgence, as the reward of rank and purity! If the exemption be a privilege ſo valuable, as to be a favour proper for the firſt eccleſiaſtic, and for the religious of the ſex only,—you confeſs the obſervance to be directly, in ſuch proportion, a burthen, and the common feelings of mankind are ſanctioned, even in the moment of their outrage. Nothing could pardon ſuch an edict, but its being abſolutely free from all exemptions, and its containing an expreſs declaration and ordinance to be executed, with rigour, on the bodies of the Prince himſelf, and every individual of his family.

December 1. To the ſhop of the brothers Piſani, ſculptors, where, for half an hour I was fooliſh enough to wiſh myſelf rich, that I might have bought Niobe, the gladiator, Diana, Venus, and ſome other caſts from the antique ſtatues. I threw away a few paols, inſtead of three or four hundred zechins. Before I quit Florence, I muſt ob-

ſerve, that beſides the buildings and various objects I have mentioned, there are numberleſs, which I have not ſeen at all;—the famous bridge Ponte della Santa Trinità deſerves, however, a word: it is the origin of that at Neuillé and others in France, but much more beautiful; being indeed the firſt in the world. The circumſtance that ſtrikes one at Florence, is the antiquity of the principal buildings; every thing one ſees conſiderable, is of three or four hundred years ſtanding; of new buildings, there are next to none; all here remind one of the Medicis: there is hardly a ſtreet that has not ſome monument, ſome decoration, that bears the ſtamp of that ſplendid magnificent family. How commerce could enrich it ſufficiently, to leave ſuch prodigious remains, is a queſtion not a little curious; for I may venture, without apprehenſion to aſſert, that all the collected magnificence of the Houſe of Bourbon, governing for eight hundred years twenty millions of people, is trivial, when compared with what the Medicis family have left, for the admiration of ſucceeding ages – ſovereigns only of the little mountainous region of Tuſcany, and with not more than one million of ſubjects. And if we paſs on to Spain, or England, or Germany, the ſame aſtoniſhing contraſt will ſtrike us. Would Mr. Hope, of Amſterdam, ſaid to be the greateſt merchant in the world, be able, in this age, to form eſtabliſhments, to be compared with thoſe of the Medicis? We have merchants in London, that make twenty, and even thirty thouſand pounds a year profit, but you will find them in brick cottages, for our modern London houſes are no better, compared with the palaces of Florence and Venice, erected in the age of their commerce; the paintings, in the poſſeſſion of our merchants, a few daubed portraits; their ſtatues, earthen-ware figures on chimney-pieces; their libraries—their cabinets,—how contemptible the idea of a compariſon! It is a remarkable fact, that with this prodigious commerce and manufacture, Florence was neither ſo large nor ſo populous as at preſent. This is inexplicable, and demands inquiries from the hiſtorical traveller:—a very uſeful path to be trodden by a man of abilities, who ſhould travel for the ſake of comparing the things he ſees with thoſe he reads of. Trade, in that age, muſt, from the fewneſs of hands, have been a ſort of monopoly, yielding immenſe profits. From the modern ſtate of Florence, without one new houſe that rivals, in any degree, thoſe of the fourteenth or fifteeth centuries, it might be thought, that with their commerce, the Florentines loſt every ſort of income; yet there is no doubt, that the revenue from land is, at this moment, greater than it was in the moſt flouriſhing age of the republic. The revenue of Tuſcany is now more equally ſpent. The government of the Grand Dukes I take to have been far better than the republican, for it was not a republic equally formed from all parts of the territory, but a city governing the country, and conſequently impoveriſhing the whole, to enrich itſelf, which is one of the worſt ſpecies of government to be found in the world. When Italy was decorated with fine buildings, the rich nobles muſt have ſpent their incomes in raiſing them: at preſent, thoſe of Florence have other methods of applying their fortunes; not in palaces, not in the fine arts, not in dinners;—the account I received was, that their incomes are, for the greateſt part, conſumed by keeping great crowds of domeſtics; many of them married, with their families, as in Spain. The Marcheſe Ricardi has forty, each of which hath a family of his own, ſome of them under-ſervants, but all maintained by him. His table is very magnificent, and ſerved with all ſorts of delicacies, yet never any company at it, except the family, tutors, and chaplains. The houſe of Ranuzzi hath a greater fortune, and alſo a greater number of domeſtics in the ſame ſtile. No dinners, as in England; no ſuppers, as in France; no parties; no expenſive equipages; little comfort; but a great train of idle lounging penſioners, taken from uſeful labour, and kept from productive induſtry; one of the worſt ways of

ſpending

ſpending their fortunes, relatively to the public good, that could have been adopted. How inferior to the encouragement of the fine or the uſeful arts!

The manner in which our little party has paſſed their time has been agreeable enough, and wonderfully cheap: we have been very well ſerved by a *traiteur*, with plenty of good things, well dreſſed, at 4 *paols* a head for dinner, and a ſlight repaſt at night; ſugar, rum, and lemons for punch, which both French and Italians like very well, added a trifle more. Theſe articles, and the apartment, with wood, which is dear, and the weather, as I noted, very cold, made my whole expence, excluſive of amuſements, 3s. 6d. a day Engliſh, which ſurely is marvellouſly cheap; for we had generally eight or ten things for dinner, and ſuch a deſert as the ſeaſon would allow, with good wine, the beſt I have drunk in Italy. The Abbate Amoretti, who, fortunately for me, arrived at Florence the ſame day as myſelf, was lodged with a friend, a canon, who being obliged to be abſent in the country moſt of the time, the Abbate, to ſave the ſervants the trouble of providing for him only, joined our party, and lived with us for ſome days, adding to our common bank no ſlight capital in good ſenſe, information, and agreeableneſs. Madame de Bouille's eaſy and unaffected character, and the good humour of the Baron, united with Mr. Stewart, and his young friend, to make a mixture of nations—of ideas—of purſuits—and of tempers, which contributed to render converſation diverſified, and the topics more in contraſt, better treated, and more intereſting; but never one idea, or one ſyllable, that caſt even a momentary ſhade acroſs that flow of eaſe and good humour, which gives to every ſociety its beſt reliſh. There was not one in the party which any of us wiſhed out of it; and we were too much pleaſed with one another to want any addition. Had I not been turning my face towards my family, and the old friends I left in England, I ſhould have quitted our little ſociety with more pain. Half a dozen people have rarely been brought together, by ſuch mere accident, that have better turned the little nothings of life to account (if I may venture to uſe the expreſſion) by their beſt cement—good humour.

The 2d. The day of departure muſt needs give ſome anxiety to thoſe who cannot throw their ſmall evils on ſervants. Renew my connection with that odious Italian race, the *vetturini*. I had agreed for a *compagnon de voyage*; but was alone, which I liked much better. To ſtep at once from an agreeable ſociety, into an Italian *voiture*, is a kind of malady which does not agree with my nerves. The beſt people appear but blanks at ſuch a moment: the mind having gotten a particular impulſe, one cannot ſo ſoon give it another. The inn at Maſchere, where I found no fire, but in partnerſhip with ſome Germans, did not tend much to revive chearfulneſs, ſo I cloſed myſelf in that which Sancho wiſely ſays, covers a man all over like a cloak.——18 miles.

The 3d. Dine at Pietra Mala, and, while the dinner was preparing, I walked to the volcano, as it is called. It is a very ſingular ſpectacle, on the ſlope of a mountain, without any hole or apparent crevice, or any thing that tends towards a crater; the fire burns among ſome ſtones, as if they were its fuel; the flame fills the ſpace of a cube of about two feet, beſides which there are ten or twelve ſmaller and inconſiderable flames. Theſe I extinguiſhed in the manner Monſ. de la Lande mentions, by rubbing hard with a ſtick among the ſmall ſtones: the flame catches again in a few moments, but in a manner that convinces me the whole is merely a vent to a current of inflammable air, which Signore Amoretti informed me has been lately aſſerted by ſome perſon who has tried experiments on it. The flame revives with ſmall exploſions, exactly like thoſe of inflammable air fired from a ſmall phial; and when I returned to the inn, the landlord had a bottle of it, which he burns at pleaſure, to ſhew his gueſts.

The cauſe of this phœnomenon has been ſought in almoſt every thing but the real fact. I am ſurpriſed the fire is not applied to ſome uſe. It would boil a conſiderable copper conſtantly, without the expence of a farthing. If I had it at Bradfield, I would burn brick or lime, and boil or bake potatoes for bullocks and hogs at the ſame time. Why not build a houſe on the ſpot? and let the kitchen-chimney ſurround the flame? there would be no danger in living in ſuch a houſe, certainly as long as the flame continued to burn. It is true the idea of a mine of inflammable air, juſt under a houſe, would ſometimes, perhaps, alarm one's female viſitors: they would be afraid of a magazine of vital air uniting with it, and at one exploſion blowing up the œconomical edifice. On the whole, the idea is rather too volcanic for Bradfield: Italy has things better worth importing than burning mountains. The King of Poland's brother, the primate, ſtopping at Pietra Mala a day for illneſs (the 25th or 26th November), the weather was ſo ſevere that it froze his Cyprus wine; milk was as hard as ſtone, and burſt all the veſſels that contained it. On whatever account Engliſhmen may travel to Tuſcany, let not a warm winter be among their inducements.—Sleep at that hideous hole *Loiano*, which would be too bad for hogs accuſtomed to a clean ſtye.——26 miles.

The 4th. The paſſage of the Appenines has been a cold and comfortleſs journey to me, and would have been much worſe, if I had not taken refuge in walking The hills are almoſt covered with ſnow: and the road, in many deſcents, a ſheet of ice. At the St. Marco, at Bologna, they brought me, according to cuſtom, the book to write my name for the commandant, and there I ſee *Lady Erne* and *ſua figlia*, and *Mr. Hervey*, *October* 14. Had my ſtars been lucky enough to have given me more of the ſociety of that cultivated family, during my ſtay in Italy, it would have ſmoothed ſome of my difficulties. I miſſed Lord Briſtol at Nice, and again at Padua. He has travelled, and lived in Italy, till he knows it as well as Derry; and, unfortunately for the ſociety of Suffolk, ten times better than Ickworth. Call on Mr. Taylor, and find, to my great concern, two of his children very ill. Abbate Amoretti, who left Florence a few days ago, is here to my comfort, and we ſhall continue together till we come to Parma. This is indeed fortunate, for one can hardly wiſh for a better fellow-traveller. ——20 miles.

The 5th. Viſit the Inſtitute, which has acquired a greater reputation than it merits. Whoever has read any thing about modern Italy, knows what it contains. I never view muſeums of natural hiſtory, and cabinets of machines for experimental philoſophy, but with a ſpecies of diſguſt. I hate expence, and time thrown away for vanity and ſhew more than utility. A well arranged laboratory, clean, and every thing in order, in a holy-day dreſs, is deteſtable; but I found a combination of many pleaſures in the diſorderly dirty laboratories of Meſſrs. de Morveau and la Voſier. There is a face of buſineſs; there is evidently work going forwards; and if ſo, there is uſe. Why move here, and at Florence, through rooms well garniſhed with pneumatical inſtruments that are never uſed? Why are not experiments going forward? If the profeſſors have not time or inclination for thoſe experiments, which it is their duty to make, let others, who are willing, convert ſuch machines to uſe. Half theſe implements grow good for nothing from reſt; and, before they are uſed, demand to be new arranged. You ſhew me abundance of tools, but ſay not a word of the diſcoveries that have been made by them. A prince, who is at the expence of making ſuch great collections of machines, ſhould always order a ſeries of experiments to be carrying on by their means. If I were Grand Duke of Tuſcany, I ſhould ſay, "You, Mr. Fontana, have invented an eudiometer; I deſire that you will carry on a ſeries of trials to aſcertain every circumſtance which

which changes the result, in the qualities of airs, that can be ascertained by the nitrous test; and if you have other inquiries, which you think more important, employ some person upon whom you can depend."—And to Mr. John Fabbroni, "You have made five trials on the weight of geoponic soils, taken hydrostatically; make five hundred more, and let the specimens be chosen in conjunction with the professor of agriculture. You have explained how to analyze soils—analyze the same specimens." When men have opened to themselves careers which they do not pursue, it is usually for want of the means of prosecuting them; but in the museum of a prince; in such cabinets as at Florence or Bologna, there are no difficulties of this sort,—and they would be better employed than in their present state, painted and patched, like an opera girl, for the idle to stare at. What would a Watson, a Milner, or a Priestley say, upon a proposal to have their laboratories brushed out clean and spruce? I believe they would kick out the operator who came on such an errand. In like manner, I hate a library well gilt, exactly arranged, and not a book out of its place; I am apt to think the owner better pleased with the reputation of his books, than with reading them. Here is a chamber for machines applicable to mechanics; and the country is full of carts, with wheels two feet high, with large axles; what experiments have been made in this chamber to inform the people on a point of such consequence to the conduct of almost every art? I have, however, a greater quarrel than this with the Institute. There is an apartment of the art of war and fortification. Is there one of the machines of agriculture, and of such of its processes as can be represented in miniature?——No: nor here, nor any where else have I seen such an exhibition; yet in the King's library at Paris, the art of English gardening is represented in wax-work, and makes a play-thing pretty enough for a child to cry for. The attention paid to war, and the neglect of agriculture in this Institute, gives me a poor opinion of it. Bologna may produce great men, but she will not be indebted for them to this establishment. View some churches and palaces, which I did not see when here before. In the church of St. Dominico, a slaughter of the Innocents, by Guido, which will command attention, how little inclined soever you may be to give it. The mother and the dead child, in the fore-ground, are truly pathetic, and the whole piece finely executed. The number of highly decorated churches at Bologna is surprising. They count, I think, above an hundred; and all the towns, and many villages in Italy, offer the same spectacle; the sums of money invested in this manner in the fifteenth and sixteenth centuries, and some even in the seventeenth, are truly amazing; the palaces were built at the same time, and at this period all the rest of Europe was in a state of barbarism: national wealth must have been immense, to have spared such an enormous superfluity. This idea recurs every where in Italy, and wants explanation from modern historians. The Italian republics had all the trade of Europe; but what was Europe in that age? England and Holland have had it this age without any such effects; with us architecture takes quite a different turn; it is the diffusion of comfort in the houses of private people; not concentrated magnificence in public works. But there does not appear, from the size and number of the towns in Italy, built in the same ages, to have been any want of this; private houses were numerous and well erected. A difference in manners, introducing new and unheard-of luxuries, has probably been the cause of the change. In such a diary as this, one can only touch on a subject—but the historians should dwell on them, rather than on battles and sieges.

The 6th. Left Bologna, with Abbate Amoretti, in a *vettura*, but the day so fine and frosty, that we walked three-fourths of the way to Modena. Pass Ansolazen, the seat of the Marchese Abbergatti, who, after having passed his grand climacteric, has just

married a *ballarina*, of ſeventeen. The country to Modena is the ſame as the flat part of the Bologneſe; it is all a dead level plain, incloſed by neatly wrought hedges againſt the road, with a view of diſtinguiſhing properties. I thought, on entering the Modeneſe dominions, acroſs the river, that I obſerved rather a decline in neatneſs and good management. View the city; the ſtreets are of a good breadth, and moſt of the houſes with good fronts, with a clean painted or well waſhed face—the effect pleaſing. In the evening to the theatre, which is of the oddeſt form I have ſeen. We had a hodge-podge of a comedy, in which the following paſſage excited ſuch an immoderate laugh, that it is worth inſerting, if only to ſhew the taſte of the audience, and the reputation of the *ballarine*; "*Era un cavallo sì bello, sì ſvelto, sì agile, di bel petto, gambe ben fatte, groppa groſſa, che ſe foſſe ſtato una cavalla, converebbe dire che l'anima della prima ballerina del teatro traſmigrata in quella.*" Another piece of miſerable wit was received with as much applauſe as the moſt ſterling:—Arlech. "*Chi e quel ré che ha la più gran corona del mondo?*——Brighel. "*Quello che ha la teſta piu piccola.*"——24 miles.

The 7th. To the ducal palace, which is a magnificent building, and contains a conſiderable collection of pictures, yet a melancholy remnant of what were once here. The library, celebrated for its contents, is ſplendid; we were ſhewn the curious MS. of which there is an account in De la Lande. The bible made for the D'Eſté family is beautifully executed, begun in 1457, and finiſhed in 1463, and coſt 1875 zechins. In the afternoon, accompanied the Abbate Amoretti to Signore Belentani; and in the evening to Signore Venturi, profeſſor of phyſicks in the univerſity, with whom we ſpent a very agreeable and inſtructive evening. We debated on the propriety of applying ſome political principles to the preſent ſtate of Italy; and I found, that the profeſſor had not only conſidered the ſubjects of political importance, but ſeemed pleaſed to converſe upon them.

The 8th. Early in the morning to Reggio. This line of country appears to be one of the beſt in Lombardy; there is a neatneſs in the houſes, which are every where ſcattered thickly, that extends even to the homeſteads and hedges, to a degree that one does not always find, even in the beſt parts of England; but the trees that ſupport the vines being large, the whole has now, without leaves, the air of a foreſt. In ſummer it muſt be an abſolute wood. The road is a noble one. Six miles from Modena, we paſſed the Secchia, or rather the vale ruined by that river, near an unfiniſhed bridge, with a long and noble cauſeway leading to it on each ſide, which does honour to the Duke and ſtates of Modena. It being a *feſta* (the immaculate conception), we met the country people going to maſs; the married women had all muffs, which are here wedding preſents. Another thing I obſerved, for the firſt time, were children ſtanding ready in the road, or running out of the houſes, to offer, as we were walking, aſſes to ride: they have them always ſaddled and bridled, and the fixed price is 1 ſol per mile. This ſhews attention and induſtry, and is therefore commendable. A countryman, who had walked with us for ſome diſtance, replied to them, that we were not *Signora d'aſini*. In the afternoon to Parma. The country the ſame, but not with that air of neatneſs that is between Reggio and Modena; not ſo well incloſed, nor ſo well planted; and though very populous, not ſo well built, nor the houſes ſo clean and neat. Paſs the Euſa, a poor miſerable brook, now three yards wide, but a bridge for it a quarter of a mile long, and a fine vale, all deſtroyed by its ravages; this is the boundary of the two duchies.——30 miles.

The 9th. At the academy is the famous picture of the holy family and St. Jerome, by Correggio, a maſter more inimitable perhaps than Raphael himſelf. To my unlearned eyes, there is in this painting ſuch a ſuffuſion of grace, and ſuch a blaze of beauty,

as ſtrike me blind (to uſe another's expreſſion) to all defects which learned eyes have found in it. I have admired this piece often in Italy in good copies, by no ordinary maſters, but none come near the original. The head of the Magdalen is reckoned the *chef d'œuvre* of Correggio. The celebrated cupola of the Duomo is ſo high, ſo much damaged, and my eyes ſo indifferent, that I leave it for thoſe who have better. At St. Sepolcro, St. Joſeph gathering palms, &c. by the ſame great hand. There are works by him alſo in the church of St. John, but not equally beautiful, and a copy of his famous Notte. At the academy is a fine adoration, by Mazzola. The great theatre here is the largeſt in the world. In the afternoon to the citadel; but its governor, Count Rezzonico, to whom I had a letter, is abſent from Parma. Then to the celebrated *reale typografia* of Signore Bodoni, who ſhewed me many works of ſingular beauty. The types, I think, exceed thoſe of Didot at Paris, who often crowds the letters cloſe, as if to ſave paper. The Daphne and Chloe, and the Amynta, are beautifully executed; I bought the latter as a ſpecimen of this celebrated preſs, which really does honour to Italy. Signore Bodoni had the title of the printer to the King of Spain, but never received any ſalary or even gratification, as I learned in Parma from another quarter; where I was alſo informed, that the ſalary he has from the duke is only 150 zechins. His merit is great and diſtinguiſhed, and his exertions are uncommon. He has thirty thouſand matrices of type. I was not a little pleaſed to find, that he has met with the beſt ſort of patron in Mr. Edwards, the bookſeller, at London, who has made a contract with him for an impreſſion of two hundred and fifty of four Greek poets, four Latin, and four Italian ones—Pindar, Sophocles, Homer, and Theocritus; Horace, Virgil, Lucretius, and Plautus; Dante, Petrarca, Arioſto, and Taſſo. In ſearching bookſellers' ſhops for printed agriculture, I became poſſeſſed of a book which I conſider as a real curioſity—"Diario di Colorno per l'anno 1789," preceded by a ſermon on this text, Ut ſeductores et veraces: Corinth. cap. vi. ver. 8. The diary is a catalogue of ſaints, with the chief circumſtances of their lives, their merits, &c. This book, which is put together in the ſpirit of the tenth century, is (marvelloufly be it ſpoken!) the production of the Duke of Parma's pen. The ſovereign, for whoſe education a conſtellation of French talents was collected—with what effect let this production witneſs. Inſtead of profanely turning friars out of their convents, this prince has peopled his palace with monks; and the holy office of inquiſition is found at Parma, inſtead of an academy of agriculture. The ducheſs has her amuſements, as well as her huſband: doubtleſs they are more agreeable, and more in uniſon with the character and practice of this age. The memoirs of the court of Parma, both during the reigns of Don Philip and the preſent duke, whenever they are publiſhed, for written I ſhould ſuppoſe they muſt be, will make a romance as intereſting as any that fiction has produced. If I lived under a government that had the power of fleecing me to ſupport the extravagances of a prince, in the name of common feelings, let it be to fill a palace with miſtreſſes, rather than with monks. For half a million of French livres, the river Parma might be made navigable from the Po: it has been more than once mentioned; but the preſent duke has other and more holy employments for money; Don Philip's were not ſo directly aimed at the gates of Paradiſe.

The 10th. In the morning, walked with Signore Amoretti to Vicomero, ſeven miles north of Parma towards the Po, the ſeat of the Count de Schaffienatti. For half the way, we had a fine clear froſty ſun-ſhine, which ſhewed us the conſtant fog that hangs over the Po; but a ſlight breeze from the north riſing, it drove this fog over us, and changed the day at once. It rarely quits the Po, except in the heat of the day in fine weather in ſummer, ſo that when you are to the ſouth of it, with a clear view of the

Appen-

Appenines, you ſee nothing of the Alps; and when to the north of it, with a fine view of the latter, you ſee nothing of the Appenines. Commonly it does not ſpread more than half a mile on each ſide wider than the river, but varies by wind, as it did to-day. The country, for four miles, is moſtly meadow, and much of it watered; but then becomes arable. Entered the houſe of a metayer, to ſee the method of living, but found nobody; the whole family, with ſix or eight women and children, their neighbours, were in the ſtable, ſitting on forms fronting each other in two lines, on a ſpace paved and clean, in the middle of the room, between two rows of oxen and cows: it was moſt diſagreeably hot on entering. They ſtay there till they go to bed, ſometimes till midnight. This practice is univerſal in Lombardy. Dine with the Count de Schaffienatti, who lives entirely in the country with his wife. He ſhewed me his farm, and I examined his dairy, where cheeſes are made nearly in the ſame way, and with the ſame implements as in the Lodeſan; theſe cheeſes may therefore, with as much propriety, be called Parmeſan, as thoſe that come from Lodi. My friend, the Abbate Amoretti, having other engagements in this country, I here took leave of him with regret.——14 miles.

The 11th. Having agreed with a *vetturino* to take me to Turin, and he not being able to procure another paſſenger, I went alone to Firenzola. It is fine ſun-ſhine weather, deciſively warmer than ever felt in England at this ſeaſon; a ſharp froſt, without affecting the extremities as with us, where cold fingers and toes may be claſſed among the nuiſances of our climate. I walked moſt of the way. The face of the country is the ſame as before, but vines decreaſe after Borgo St. Donnino. An inequality in the ſurface of the country begins alſo to appear, and every where a ſcattering of oak timber, which is a new feature.——20 miles.

The 12th. Early in the morning to Piacenza, that I might have time to view that city, which, however contains little worthy of attention. The country changed a good deal to-day. It is like the flat rich parts of Eſſex and Suffolk. Houſes are thinner, and the general face inferior. The inequalities which began yeſterday increaſe.—The two equeſtrian ſtatues of Alexander and Rannutio Farneſe, are finely expreſſive of life; the motion of the horſes, particularly that of Alexander's, is admirable; and the whole performance ſpirited and alive. They are by John of Bologna, or Moca his *éleve*. Sleep at Caſtel St. Giovanne.——26 miles.

The 13th. Croſs a brook two miles diſtant, and enter the King of Sardinia's territory, where the ſculls of two robbers, who, about two months ago, robbed the courier of Rome, are immediately ſeen: this is an agreeable object, that ſtrikes us at our entrance into any part of the Piedmonteſe dominions; the inhabitants having in this reſpect an ill reputation throughout all Italy, much to the diſgrace of the government. The country, to Tortona, is all hill and dale; and being cultivated, with an intermixture of vines, and much incloſed, with many buildings on the hills, the features are ſo agreeable, that it may be ranked among the moſt pleaſing I have ſeen in Italy. Within three miles of Voghera, all is white with ſnow, the firſt I have ſeen in the plain; but as we approach the mountains, ſhall quit it no more till the Alps are croſſed. Dine at Voghera, in a room in which the chimney does not ſmoke; which ought to be noted, as it is the only one free from it ſince I left Bologna. At this freezing ſeaſon, to have a door conſtantly open to aid the chimney in its office; one ſide burnt by the blaze of a faggot, and the other frozen by a door that opens into the yard, are among the *agrémens* of a winter journey in lat. 45. After Voghera the hills tend more to the ſouth. The ſun ſetting here is a ſingular object to an eye uſed only to plains. The Alps not being viſible, it ſeems to ſet long before it reaches the plane of the horizon. Paſs the citadel of Tortona

Tortona on a hill, one of the ſtrongeſt places in the poſſeſſion of the King of Sardinia ——33 miles.

The 14th. Ford the Scrivia; it is as ravaging a ſtream as the Trebbia, ſubject to dreadful floods, after even two days rain; eſpecially if a Scirocco wind melts the ſnow on the Appenines: ſuch accidents have often kept travellers four, five, and even ſix days at miſerable inns. I felt myſelf lighter for the having paſſed it; for there were not fewer than ſix or ſeven rivers, which could have thus ſtopped me. This is the laſt. The weather continues ſharp and froſty, very cold, the ice five inches thick, and the ſnow deep. Dine at Alexandria, joined there by a gentleman who has taken the other ſeat in the vettura to Turin. Juſt on the outſide of that town, there is an uncommon covered bridge. The citadel ſeems ſurrounded with many works. Sleep at Felliſham, a vile dirty hole, with paper windows, common in this country, and not uncommon even in Alexandria itſelf.——18 miles.

The 15th. The country, to Aſti and Villanova, all hilly, and ſome of it pleaſing.—Coming out of Aſti, where we dined, the country for ſome miles is beautiful. My vetturino has been travelling in company with another, without my knowing any thing of the maſter till to-day; but we joined at dinner, and I found him a very ſenſible agreeable Frenchman, apparently a man of faſhion, who knows every body. His converſation, both at dinner, and in the evening, was no inconſiderable relief to the dullneſs of ſuch a frozen journey. His name Nicolay.——22 miles.

The 16th. To Turin, by Moncallier; much of the country dull and diſagreeable; hills without landſcape; and vales without the fertility of Lombardy. My companion, who is in office as an architect to the King, as well as I could gather from the hints he dropped, lived nine years in Sardinia. The account he gives of that iſland, contains ſome circumſtances worth noting. What keeps it in its preſent unimproved ſituation, is chiefly the extent of eſtates, the abſence of ſome very great proprietors, and the inattention of all. The Duke of Aſſinara has 300,000 livres a-year, or 15,000l. ſterling. The Duke of St. Piera 160,000. The Marcheſe di Paſcha, very great. Many of them live in Spain. The Conte de Girah, a grandee of Spain, has an eſtate of two days journey, reaching from Poula to Oliuſtre. The peaſants are a miſerable ſet, that live in poor cabins, without other chimnies than a hole in the roof to let the ſmoke out. The intemperia is frequent and pernicious every where in ſummer; yet there are very great mountains. Cattle have nothing to eat in winter, but brouzing on ſhrubs, &c. There are no wolves. The oil ſo bad as not to be eatable. Some wine almoſt as good as Malaga, and not unlike it. No ſilk. The great export is wheat, which has been known to yield forty for one; but ſeven or eight for one is the common produce. Bread, 1*s.* the pound; beef, 2*s.*; mutton, 2½*s.* There are millions of wild ducks; ſuch numbers, that perſons fond of ſhooting have gone thither merely for the incredible ſport they afford.

The 17th. Waited on our ambaſſador, the Honourable Mr. Trevor, who was not at home; but I had an invitation to dinner ſoon after, which I accepted readily, and paſſed a very pleaſant day. Mr. Trevor's ſituation is not compatible with his being a practical farmer; but he is a man of deep ſenſe, and much obſervation; all ſuch are political farmers, from conviction of the importance of the ſubject. He converſes well on it; Mr. Trevor mentioned ſome Piedmonteſe nobles, to whom he would have introduced me, if my ſtay had been long enough; but he would not admit an excuſe reſpecting the Portugueſe ambaſſador, of whom he ſpeaks as a perſon remarkably well informed; and who loves agriculture greatly. In the evening, accompanied Mrs. Trevor to the great

opera-houſe; a rehearſal of l'Olympiade, new-ſet by a young compoſer, Frederici; Marcheſe ſung.

The 18th. I am not a little obliged to Mr. Trevor for introducing me to one of the beſt informed men I have any where met with, Don Roderigo de Souza Continho, the Portugueſe miniſter at the court of Turin, with whom I dined to-day; he had invited to meet me the Medico Bonvicino, l'Abbate Vaſco, author of ſeveral political pieces of merit, and Signore Bellardi, a botaniſt of conſiderable reputation, whom I had known before at Turin. What the young and beautiful Madame de Souza thinks of an Engliſh farmer, may be eaſily gueſſed; for not one word was ſpoken in an inceſſant converſation, but on agriculture, or thoſe political principles which tend to cheriſh or reſtrain it. To a woman of faſhion in England this would not appear extraordinary, for ſhe now and then meets with it; but to a young Piedmonteſe, unaccuſtomed to ſuch converſations, it muſt have appeared odd, uninviting, and unpolite. M. de Souza ſent to the late Prince of Brazil, one of the beſt and moſt judicious offerings that any ambaſſador ever made to his ſovereign; Portugal he repreſents as a country capable of vaſt improvements by irrigation, but almoſt an entire ſtranger to the practice; therefore, with a view of introducing a knowledge of its importance, he ordered a model, in different woods, to be conſtructed of a river; the method of taking water from it; and the conducting of it by various channels over the adjoining or diſtant lands, with all the machinery uſed for regulating and meaſuring the water. It was made on ſuch a ſcale, that the model was an exhibition of the art, ſo far as it could be repreſented in the diſtribution of water. It was an admirable thought, and might have proved of the greateſt importance to his country. This machine is at Liſbon; and, I take it for granted, is there conſidered (if Liſbon be like other courts) as a toy for children to look at, inſtead of a ſchool for the inſtruction of a people. I was pleaſed to find the Portugueſe miniſter among the moſt intimate acquaintances of Mr. Trevor; the friendſhip of men of parts and knowledge, does them reciprocal honour: I am ſorry to quit Turin, juſt as I am known to two men who would be ſufficient to render any town agreeable; nor ſhould I be ſorry if Don Roderigo was a farmer near me in Suffolk, inſtead of being an ambaſſador at Turin, for which he is doubtleſs much obliged to me.

The 19th. The King has ſent a meſſage to the Academy of Sciences, recommending them to pay attention to whatever concerns dying. The miniſter is ſaid to be a man of abilities, from which expreſſion, in this age, we are to underſtand, a perſon who is, or ſeems to be active for the encouragement of manufactures and commerce, but never one who has juſt ideas on the importance of agriculture in preference to all other objects. To multiply mulberries in Piedmont, and cattle and ſheep in Savoy—to do ſomething with the fertile waſtes and peſtiferous marſhes of Sardinia, would give a miniſter reputation among the few real politicians only in any country: but dying, and buttons*, and ſciſſars, and commerce, are calculated to pleaſe the many, and conſequently to give reputation to thoſe who build on ſuch foundations. Dine with Mr. Trevor, and continue to find in him an equal ability and inclination to anſwer ſuch of my enquiries as I took the liberty of troubling him with. In the evening he introduced me to Count Granari, the ſecretary of ſtate for home affairs, that is the prime miniſter, under an idea that he had an intention of introducing Spaniſh ſheep: he was ambaſſador in Spain, and ſeems, from his converſation, well informed concerning the Spaniſh flocks. This miniſter was called home to fill his preſent important ſituation, to the ſatisfaction of the people, who have

* See Milan.

very

very generally a good opinion of his ability and prudence. To-morrow I leave Turin: I have agreed with a vetturino for carrying me to Lyons acroſs Mont Cenis, in a chariot, and allowed him to take another perſon: this perſon he has found; and it is Mr. Grundy, a conſiderable merchant of Birmingham, who is on his return from Naples.

The 20th. Leave Turin; dine at St. Anthony, like hogs; and ſmoked all the dinner like hams. Sleep at Suza, a better inn.——32 miles.

The 21ſt. The ſhorteſt day in the year, for one of the expeditions that demand the longeſt, the paſſage of Mont Cenis, about which ſo much has been written. To thoſe who, from reading, are full of expectation of ſomething very ſublime, it is almoſt as great a deluſion as is to be met with in the regions of romance: if travellers are to be believed, the deſcent, *rammaſſant* on the ſnow, is made with the velocity of a flaſh of lightning; I was not fortunate enough to meet with any thing ſo wonderful. At the *grande croix* we ſeated ourſelves in machines of four ſticks, dignified with the name of *traineau*: a mule draws it, and a conductor, who walks between the machine and the animal, ſerves chiefly to kick the ſnow into the face of the rider. When arrived at the precipice, which leads down to Lanebourg, the mule is diſmiſſed, and the *rammaſſing* begins. The weight of two perſons, the guide ſeating himſelf in the front, and directing it with his heels in the ſnow, is ſufficient to give it motion. For moſt of the way he is content to follow very humbly the path of the mules, but now and then croſſes to eſcape a double, and in ſuch ſpots the motion is rapid enough, for a few ſeconds, to be agreeable; they might very eaſily ſhorten the line one half, and by that method gratify the Engliſh with the velocity they admire ſo much. As it is at preſent, a good Engliſh horſe would trot as faſt as we *rammaſſed*. The exaggerations we have read of this buſineſs have ariſen, perhaps, from travellers paſſing in ſummer, and relying on the deſcriptions of the muleteers. A journey on ſnow is commonly productive of laughable incidents; the road of the *traineau* is not wider than the machine, and we were always meeting mules, &c. It was ſometimes, and with reaſon, a queſtion who ſhould turn out; for the ſnow being ten feet deep, the mules had ſagacity to conſider a moment before they buried themſelves. A young Savoyard female, riding her mule, experienced a complete reverſal; for, attempting to paſs my *traineau*, her beaſt was a little reſtive, and tumbling, diſmounted his rider: the girl's head pitched in the ſnow, and ſunk deep enough to fix her beauties in the poſition of a forked poſt; and the wicked muleteers, inſtead of aſſiſting her, laughed too heartily to move: if it had been one of the *ballerine*, the attitude would not have been diſtreſſing to her. Theſe laughable adventures, with the gilding of a bright ſun, made the day paſs pleaſantly; and we were in good humour enough to ſwallow with chearfulneſs, a dinner at Lanebourg, that, had we been in England, we ſhould have conſigned very readily to the dog-kennel.——20 miles.

The 22d. The whole day we were among the high Alps. The villages are apparently poor, the houſes ill built, and the people with few comforts about them, except plenty of pine wood, the foreſts of which harbour wolves and bears. Dine at Modane, and ſleep at St. Michel.——25 miles.

The 23d. Paſs St. Jean Maurienne, where there is a biſhop, and near that place we ſaw what is much better than a biſhop, the prettieſt, and indeed the only pretty woman we ſaw in Savoy; on enquiry, found it was Madame de la Coſte, wife of a farmer of tobacco; I ſhould have been better pleaſed if ſhe had belonged to the plough.—The mountains now relax their terrific features: they recede enough, to offer to the willing induſtry of the poor inhabitants ſomething like a valley; but the jealous torrent ſeizes it with the hand of deſpotiſm, and like his brother tyrants, reigns but to deſtroy. On

ſome ſlopes vines: mulberries begin to appear; villages increaſe; but ſtill continue rather ſhapeleſs heaps of inhabited ſtones than ranges of houſes; yet in theſe homely cots, beneath the ſnow-clad hills, where natural light comes with tardy beams, and art ſeems more ſedulous to exclude than admit it, peace and content, the companions of honeſty, may reſide; and certainly would, were the penury of nature the only evil felt; but the hand of deſpotiſm may be more heavy. In ſeveral places the view is pictureſque and pleaſing: incloſures ſeem hung againſt the mountain ſides, as a picture is ſuſpended to the wall of a room. The people are in general exceedingly ugly and dwarfiſh. Dine at La Chambre; ſad fare. Sleep at Aguebelle.——30 miles.

The 24th. The country to-day, that is to Chambery, improves greatly; the mountains, though high, recede; the vallies are wide, and the ſlopes more cultivated; and towards the capital of Savoy, are many country houſes which enliven the ſcene. Above Mal Taverne is Chateauneuf, the houſe of the counteſs of that name. I was ſorry to ſee, at the village, a *carcan*, or ſeigneural ſtandard, erected, to which a chain and heavy iron collar are faſtened, as a mark of the lordly arrogance of the nobility, and the ſlavery of the people. I aſked why it was not burned, with the horror it merited? The queſtion did not excite the ſurprize I expected, and which it would have done before the French revolution. This led to a converſation, by which I learned, that in the *haut* Savoy, there are no ſeigneurs, and the people are generally at their eaſe; poſſeſſing little properties, and the land in ſpite of nature, almoſt as valuable as in the lower country, where the people are poor, and ill at their eaſe. I demanded why? *Becauſe there are ſeigneurs every where.* What a vice is it, and even a curſe, that the gentry, inſtead of being the cheriſhers and benefactors of their poor neighbours, ſhould thus, by the abomination of feudal rights, prove mere tyrants? Will nothing but revolutions, which cauſe their *chateaux* to be burnt, induce them to give to reaſon and humanity, what will be extorted by violence and commotion? We had arranged our journey, to arrive early at Chambery, for an opportunity to ſee what is moſt intereſting in a place that has but little. It is the winter reſidence of almoſt all the nobility of Savoy. The beſt eſtate in the duchy is not more than 60,000 Piedmonteſe livres a year (3000l.), but for 20,000 livres, they live *en grand ſeigneur* here. If a country gentleman have 150 louis d'or a year, he will be ſure to ſpend three months in a town; the conſequence of which muſt be, nine uncomfortable ones in the country, in order to make a beggarly figure the other three in town. Theſe idle people are this Chriſtmas diſappointed, by the court having refuſed admittance to the uſual company of French comedians; the government fears importing among the rough mountaineers the preſent ſpirit of French liberty. Is this weakneſs or policy? But Chambery had objects to me more intereſting. I was eager to view Charmettes, the road, the houſe of Madame Warens, the vineyard, the garden, every thing, in a word, that had been deſcribed by the inimitable pencil of Rouſſeau. There was ſomething ſo deliciouſly amiable in her character, in ſpite of her frailties—her conſtant gaiety and good humour—her tenderneſs and humanity—her farming ſpeculations—but, above all other circumſtances, the love of Rouſſeau, have written her name amongſt the few whoſe memoirs are connected with us, by ties more eaſily felt than deſcribed. The houſe is ſituated about a mile from Chambery, fronting the rocky road which leads to that city, and the wood of cheſnuts in the valley. It is ſmall, and much of the ſame ſize as we ſhould ſuppoſe, in England, would be found on a farm of one hundred acres, without the leaſt luxury or pretenſion; and the garden, for ſhrubs and flowers, is confined, as well as unaſſuming. The ſcenery is pleaſing, being ſo near a city, and yet, as he obſerves, quite ſequeſtered. It could not but intereſt me, and I viewed

viewed it with a degree of emotion; even in the leafleſs melancholy of December it pleaſed. I wandered about ſome hills, which were aſſuredly the walks he has ſo agreeably deſcribed. I returned to Chambery, with my heart full of Madame de Warens. We had with us a young phyſician, a Monſieur Bernard, of Modanne en Maurienne, an agreeable man, connected with people at Chambery; I was ſorry to find, that he knew nothing more of the matter, than that Madame de Warens was certainly dead. With ſome trouble I procured the following certificate:

Extract from the Mortuary Regiſter of the Pariſh Church of St. Peter de Lemens.

"The 30th of July was buried, in the burying ground of Lemens, Dame Louiſa Frances Eleonor de la Tour, widow of the Seignor Baron de Warens, native of Vevay, in the canton of Berne, in Switzerland, who died yeſterday, at ten in the evening, like a good Chriſtian, and fortified with her laſt ſacraments, aged about ſixty-three years. She abjured the Proteſtant religion about thirty-ſix years paſt; ſince which time ſhe lived in our religion. She finiſhed her days in the ſuburb of Neſin, where ſhe had lived for about eight years, in the houſe of M. Crepine. She lived heretofore at the Rectus, about four years in the houſe of the Marquis d'Alinge. She paſſed the reſt of her life, ſince her abjuration, in this city. (Signed) GAIME, rector of Lemens."*

"I, the underwritten, preſent rector of the ſaid Lemens, certify, that I have extracted this from the mortuary regiſter of the pariſh church of the ſaid place, without any addition or diminution whatſoever; and, having collated it, have found it conformable to the original. In witneſs of all which, I have ſigned the preſent at Chambery, the 24th of December, 1789.

(Signed) A. SACHOD, rector of Lemens.

——23 miles.

The 25th. Left Chambery much diſſatisfied, for want of knowing more of it. Rouſſeau gives a good character* of the people, and I wiſhed to know them better. It was the worſt day I have known, for months paſt, a cold thaw, of ſnow and rain; and yet in this dreary ſeaſon, when nature ſo rarely has a ſmile on her countenance, the environs were charming. All hill and dale, toſſed about with ſo much wildneſs, that the features are bold enough for the irregularity of a foreſt ſcene; and yet withal, ſoftened and melted down by culture and habitation, to be eminently beautiful. The country incloſed to the firſt town in France, Pont Beauvoiſin, where we dined and ſlept. The paſſage of Echelles, cut in the rock by the ſovereign of the country, is a noble and ſtupendous work. Arrive at Pont Beauvoiſin, once more entering this noble kingdom, and meeting with the cockades of liberty, and thoſe arms in the hands of the people, which, it is to be wiſhed, may be uſed only for their own and Europe's peace.——24 miles.

The 26. Dine at Tour du Pin, and ſleep at Verpiliere. This is the moſt advantageous entrance into France, in reſpect of beauty of country. From Spain, England, Flanders, Germany, or Italy by way of Antibes, all are inferior to this. It is really beautiful, and well planted, has many incloſures and mulberries, with ſome vines. There is hardly a bad feature, except the houſes; which, inſtead of being well built, and white as in Italy, are ugly thatched mud cabins, without chimnies, the ſmoke iſſuing at a hole in the roof, or at the windows. Glaſs ſeems unknown; and there is an air of poverty and miſery about them quite diſſonant to the general aſpect of the country.

* S'il eſt une petite ville au monde où l'on goûte la douceur de la vie dans un commerce agréable & ſûr, c'eſt Chambery.

Paſs Bourgoyn, a large town. Reach Verpiliere. This day's journey is a fine variation of hill and dale, well planted with chateaux, and farms and cottages ſpread about it. A mild lovely day of ſun-ſhine threw no ſlight gilding over the whole. For ten or twelve days paſt, they have had, on this ſide of the Alps, fine open warm weather, with ſun-ſhine; but on the Alps themſelves, and in the vale of Lombardy, on the other ſide, we were frozen and buried in ſnow. At Pont Beauvoiſin, and Bourgoyn, our paſſports were demanded by the *milice bourgeoiſe*, but no where elſe: they aſſure us, that the country is perfectly quiet every where, and have no guards mounted in the villages—nor any ſuſpicions of fugitives, as in the ſummer. Not far from Verpiliere, paſs the burnt chateau of M. de Veau, in a fine ſituation, with a noble wood behind it. Mr. Grundy was here in Auguſt, and it had then but lately been laid in aſhes; and a peaſant was hanging on one of the trees of the avenue by the road, one among many who were ſeized by the *milice bourgeoiſe* for this atrocious act.——27 miles.

The 27th. The country changes at once; from one of the fineſt in France, it becomes almoſt flat and ſombre. Arrive at Lyons, and there, for the laſt time, ſee the Alps; on the quay there is a very fine view of Mont Blanc, which I had not ſeen before; leaving Italy, and Savoy, and the Alps, probably never to return, has ſomething of a melancholy ſenſation. For all thoſe circumſtances which render that claſſical country illuſtrious—the ſeat of great men—the theatre of the moſt diſtinguiſhed actions—the excluſive field in which the elegant and agreeable arts have loved to range—what country can be compared with Italy? to pleaſe the eye, to charm the ear, to gratify the enquiries of a laudable curioſity, whither would you travel? In every boſom whatever, Italy is the ſecond country in the world—of all others, the ſureſt proof that it is the firſt. To the theatre; a muſical thing, which called all Italy by contraſt to my ears! What ſtuff is French muſic! the diſtortions of embodied diſſonance. The theatre is not equal to that of Nantes; and very much inferior to that of Bourdeaux.——18 miles.

The 28th. I had letters to Monſ. Goudard, a conſiderable ſilk merchant, and, waiting on him yeſterday, he appointed me to breakfaſt with him this morning. I tried hard to procure ſome information relative to the manufactures of Lyons; but in vain: every thing was *ſelon* and *ſuivant*. To Monſ. l'Abbé Rozier, author of the voluminous dictionary of agriculture, in quarto. I viſited him as a man very much extolled, and not with an idea of receiving information in the plain practical line, which is the object of my enquiries, from the compiler of a dictionary. When Monſ. Rozier lived at Beziers, he occupied a conſiderable farm; but, on becoming the inhabitant of a city, he placed this motto over his door—*Laudato ingentia rura, exiguum colito*, which is but a bad apology for no farm at all. I made one or two efforts towards a little practical converſation; but he flew off from that centre in ſuch eccentric *radii* of ſcience, that the vanity of the attempt was obvious in a moment. A phyſician preſent, remarked to me, that if I wanted to know common practices and products, I ſhould apply to common farmers, indicating by his air and manner, that ſuch things were beneath the dignity of ſcience. Monſ. l'Abbé Rozier is, however, a man of conſiderable knowledge, though no farmer; in thoſe purſuits, which he has cultivated with inclination, he is juſtly celebrated—and he merits every eulogium, for having ſet on foot the *Journal de Phyſique*, which, take it for all and all, is by far the beſt journal that is to be found in Europe. His houſe is beautifully ſituated, commanding a noble proſpect; his library is furniſhed with good books; and every appearance about him points out an eaſy fortune. Waited then on Monſ. de Froſſard, a proteſtant

miniſter, who, with great readineſs and liberality, gave me much valuable information; and, for my further inſtruction on points with which he was not equally acquainted, introduced me to Monſ. Roland la Platerie, inſpector of the Lyons fabrics. This gentleman had notes upon many ſubjects, which afforded an intereſting converſation; and, as he communicated freely, I had the pleaſure to find, that I ſhould not quit Lyons without a good portion of the knowledge I ſought. This gentleman, ſomewhat advanced in life, has a young and beautiful wife—the lady to whom he addreſſed his letters, written in Italy, and which have been publiſhed in five or ſix volumes. Monſ. Froſſard deſiring Monſ. de la Platerie to dine with him, to meet me, we had a great deal of converſation on agriculture, manufactures, and commerce; and differed but little in our opinions, except on the treaty of commerce between England and France, which that gentleman condemned, as I thought, unjuſtly; and we debated the point. He warmly contended, that ſilk ought to have been included as a benefit to France; I urged, that the offer was made to the French miniſtry, and refuſed; and I ventured to ſay, that had it been accepted, the advantage would have been on the ſide of England, inſtead of France, ſuppoſing, according to the vulgar ideas, that the benefit and the balance of trade are the ſame things. I begged him to give me a reaſon for believing that France would buy the ſilk of Piedmont and of China, and work it up to underſell England; while England buys the French cotton, and works it into fabrics that underſell thoſe of France, even under an accumulation of charges and duties? We diſcuſſed theſe, and ſimilar ſubjects, with that ſort of attention and candour that render them intereſting to perſons who love a liberal converſation upon important points.—Among the objects at Lyons, that are worthy of a ſtranger's curioſity, is the point of junction of the two great rivers, Soanne and the Rhone; Lyons would doubtleſs be much better ſituated, if it were really at the junction; but there is an unoccupied ſpace ſufficient to contain a city half as large as Lyons itſelf. This ſpace is a modern embankment, that coſt ſix millions, and ruined the undertakers. I prefer even Nantes to Lyons. When a city is built at the junction of two great rivers, the imagination is apt to ſuppoſe, that thoſe rivers form a part of the magnificence of the ſcenery. Without broad, clean, and well built quays, what are rivers to a city but a facility to carry coals or tar-barrels? What, in point of beauty, has London to do with the Thames, except at the terrace of the Adelphi, and the new buildings of Somerſet-place, any more than with Fleet-ditch, buried as it is, a common ſhore? I know nothing in which our expectations are ſo horribly diſappointed as in cities, ſo very few are built with any general idea of beauty or decoration!

The 29th. Early in the morning, with Monſ. Froſſard, to view a large farm near Lyons. Monſ. Froſſard is a ſteady advocate for the new conſtitution eſtabliſhing in France. At the ſame time, all thoſe I have converſed with in the city, repreſent the ſtate of the manufacture as melancholy to the laſt degree. Twenty thouſand people are fed by charity, and conſequently very ill fed; and the maſs of diſtreſs, in all kinds, among the lower claſſes, is greater than ever was known—or any thing of which they had an idea. The chief cauſe of the evil felt here, is the ſtagnation of trade, occaſioned by the emigrations of the rich from the kingdom, and the general want of confidence in merchants and manufacturers; whence, of courſe, bankruptcies are common. At a moment when they are little able to bear additional burthens, they raiſe by voluntary contributions, for the poor, immenſe ſums; ſo that including the revenues of the hoſpitals, and other charitable foundations, there are not paid, at preſent, for the uſe of the poor, leſs than 40,000 louis d'or a year. My fellow traveller, Mr. Grundy, being deſirous to get ſoon to Paris, perſuaded me to travel with him in a poſt-chaiſe, a mode

a mode of travelling which I deteſt, but the ſeaſon urged me to it; and a ſtill ſtronger motive, was the having of more time to paſs in that city, for the ſake of obſerving the extraordinary ſtate of things——of a King, Queen, and Dauphine of France, actual priſoners; I therefore accepted his propoſal, and we ſet off after dinner to-day. In about ten miles come to the mountains. The country dreary; no incloſures, no mulberries, no vines, much waſte, and nothing that indicates the vicinity of ſuch a city. At Arnas, ſleep at a comfortable inn.——17 miles.

The 30th. Continue early in the morning to Tarar; the mountain of which name is more formidable in reputation than in reality. To St. Syphorien the ſame features. The buildings increaſe, both in number and goodneſs, on approaching the Seine, which we croſſed at Roane; it is here a good river, and is navigable many miles higher, and conſequently at a vaſt diſtance from the ſea. There are many flat bottomed barges on it, of a conſiderable ſize.——50 miles.

The 31ſt. Another clear, fine, ſun-ſhine day; rarely do we ſee any thing like it at this ſeaſon in England. After Droiturier, the woods of the Bourbonnois commence. At St. Gerund le Puy the country improves, enlivened by white houſes and chateaux, and all continues fine to Moulins. Sought here my old friend, Monſ. L'Abbé Barut, and had another interview with Monſ. le Marquis Degouttes, concerning the ſale of his chateau and eſtate of Riaux; I deſired ſtill to have the refuſal of it, which he promiſed me, and will, I have no doubt, keep his word. Never have I been ſo tempted on any occaſion, as with the wiſh of poſſeſſing this agreeable ſituation, in one of the fineſt parts of France, and in the fineſt climate of Europe. God grant, that, ſhould he be pleaſed to protract my life, I may not, in a ſad old age, repent at not cloſing of once with an offer to which prudence calls, and prejudice only forbids! Heaven ſend me eaſe and tranquillity, for the cloſe of life, be it paſſed either in Suffolk, or the Bourbonnois!——38 miles.

January 1, 1790. Nevers makes a fine appearance, riſing proudly from the Loire; but, on the firſt entrance, it is like a thouſand other places. Towns, thus ſeen, reſemble a group of women, huddled cloſe together: you ſee their nodding plumes and ſparkling gems, till you fancy that ornament is the herald of beauty; but, on a nearer inſpection, the faces are too often but common clay. From the hill that deſcends to Pouges, is an extenſive view to the north; and after Pouilly a fine ſcenery, with the Loire doubling through it.——75 miles.

The 2d. At Briare, the canal is an object that announces the happy effects of induſtry. There we quit the Loire. The country all the way diverſified; much of it dry, and very pleaſant, with rivers, hills, and woods, but almoſt every where a poor ſoil. Paſs many *chateaux*, ſome of which are very good. Sleep at Nemours, where we meet with an inn-keeper, who exceeded, in knavery, all we had met with, either in France or Italy: for ſupper, we had a *ſoupe maigre*, a partridge and a chicken roaſted, a plate of celery, a ſmall cauliflower, two bottles of poor *vin du Pays*, and a deſſert of two biſcuits and four apples: here is the bill:—Potage 1 liv. 10*ſ.*—Perdrix, 2 liv. 10*ſ.* Poulet, 2 liv.—Celeri, 1 liv. 4*ſ.*—Choufleur, 2 liv.—Pain et deſſert, 2 liv.—Feu & apartment, 6 liv.—Total, 19 liv. 8*ſ.* Againſt ſo impudent an extortion we remonſtrated ſeverely, but in vain. We then inſiſted on his ſigning the bill, which after many evaſions, he did, *a l'etoile; Foulliare.* But having been carried to the inn, not as the ſtar, but the *écu de France*, we ſuſpected ſome deceit; and going out to examine the premiſes, we found the ſign to be really the *écu*, and learned, on enquiry, that his own name was *Roux*, inſtead of *Foulliare:* he was not prepared for this detection, or for the execration we poured on ſuch an infamous conduct: but he ran away in an inſtant, and hid himſelf

himſelf till we were gone. In juſtice to the world, however, ſuch a fellow ought to be marked out.——60 miles.

The 3d.—Through the foreſt of Fontainbleau, to Melun and Paris. The 60 *poſtes* from Lyons to Paris, making three hundred Engliſh miles, coſt us, including 3 louis for the hire of the poſt-chaiſe (an old French cabriolet of two wheels) and the charges at the inns, &c. 15l. Engliſh; that is to ſay, 1s. per Engliſh mile, or 6d. per head. At Paris, I went to my old quarter, the hotel de la Rochefoucauld; for at Lyons I had received a letter from the duke de Liancourt, who deſired me to make his houſe my home, juſt as in the time of his mother, my much lamented friend, the ducheſs d'Eſtiſſac, who died while I was in Italy. I found my friend Lazowſki well, and we were *à gorge deployée*, to converſe on the amazing ſcenes that have taken place in France ſince I left Paris.——46 miles.

The 4th. After breakfaſt, walk in the gardens of the Thuilleries, where there is the moſt extraordinary ſight that either French or Engliſh eyes could ever behold at Paris. The King, walking with ſix grenadiers of the *milice bourgeoiſe*, with an officer or two of his houſehold, and a page. The doors of the gardens are kept ſhut in reſpect to him, in order to exclude every body but deputies, or thoſe who have admiſſion-tickets. When he entered the palace, the doors of the gardens were thrown open for all without diſtinction, though the Queen was ſtill walking with a lady of her court. She alſo was attended ſo cloſely by the *gardes bourgeoiſes*, that ſhe could not ſpeak but in a low voice, without being heard by them. A mob followed her, talking very loud, and paying no other apparent reſpect than that of taking off their hats wherever ſhe paſſed, which was indeed more than I expected. Her Majeſty does not appear to be in health; ſhe ſeems to be much affected, and ſhews it in her face; but the King is as plump as eaſe can render him. By his orders, there is a little garden railed off, for the Dauphin to amuſe himſelf in, and a ſmall room is built in it to retire to in caſe of rain; here he was at work with his little hoe and rake, but not without a guard of two grenadiers. He is a very pretty good-natured looking boy, of five or ſix years old, with an agreeable countenance; wherever he goes, all hats are taken off to him, which I was glad to obſerve. All the family being kept thus cloſe priſoners (for ſuch they are in effect) afford, at firſt view a ſhocking ſpectacle; and is really ſo, if the act were not effectually neceſſary to effect the revolution; this I conceive to be impoſſible; but if it were neceſſary, no one can blame the people for taking every meaſure poſſible to ſecure that liberty they had ſeized in the violence of a revolution. At ſuch a moment, nothing is to be condemned but what endangers the national freedom. I muſt, however, freely own, that I have my doubts whether this treatment of the royal family can be juſtly eſteemed any ſecurity to liberty; or, on the contrary, whether it were not a very dangerous ſtep, that expoſes to hazard whatever had been gained. I have ſpoken with ſeveral perſons to-day, and have ſtated objections to the preſent ſyſtem, ſtronger even than they appear to me, in order to learn their ſentiments; and it is evident, they are at the preſent moment under an apprehenſion of an attempt towards a counter-revolution. The danger of it very much, if not abſolutely, reſults from the violence which has been uſed towards the royal family. The National Aſſembly was, before that period, anſwerable only for the permament conſtitutional laws paſſed for the future: ſince that moment, it is equally anſwerable for the whole conduct of the government of the ſtate, executive as well as legiſlative. This critical ſituation has made a conſtant ſpirit of exertion neceſſary amongſt the Paris militia. The great object of M. La Fayette, and the other military leaders, is to improve their diſcipline, and to bring them into ſuch a form as to allow a rational dependence on them, in caſe of their being wanted in the field; but ſuch is the ſpirit of

freedom, that, even in the military, there is ſo little ſubordination, that a man is an officer to day, and in the ranks to-morrow; a mode of proceeding, that makes it the more difficult to bring them to the point their leaders ſee neceſſary. Eight thouſand men in Paris may be called the ſtanding army, paid every day 15*ſ.* a man; in which number is included the corps of the French guards from Verſailles, that deſerted to the people; they have alſo eight hundred horſe, at an expence each of 1500 livres (62l. 15s. 6d.) a-year, and the officers have double the pay of thoſe in the army.

The 5th. Yeſterday's addreſs of the National Aſſembly to the King has done them credit with every body. I have heard it mentioned by people of very different opinions, but all concur in commending it. It was upon the queſtion of naming the annual ſum which ſhould be granted for the civil liſt. They determined to ſend a deputation to His Majeſty, requeſting him to name the ſum himſelf, and praying him to conſult leſs his ſpirit of œconomy, than a ſenſe of that dignity which ought to environ the throne with a becoming ſplendor. Dine with the Duke de Liancourt, at his apartments in the Thuilleries, which, on the removal from Verſailles, were aſſigned to him as grand maſter of the wardrobe; he gives a great dinner, twice a-week, to the deputies, at which from twenty to forty are uſually preſent. Half an hour after three was the hour appointed, but we waited, with ſome of the deputies that had left the Aſſembly, till ſeven, before the duke and the reſt of the company came.

There is in the aſſembly at preſent a writer of character, the author of a very able book, which led me to expect ſomething much above mediocrity in him; but he is made of ſo many pretty littleneſſes, that I ſtared at him with amazement. His voice is that of a feminine whiſper, as if his nerves would not permit ſuch a boiſterous exertion as that of ſpeaking loud enough to be heard; when he breathes out his ideas, he does it with eyes half cloſed; waves his head in circles, as if his ſentiments were to be received as oracles; and has ſo much relaxation and pretenſion to eaſe and delicacy of manner, with no perſonal appearance to ſecond theſe prettineſſes, that I wondered by what artificial means ſuch a maſs of heterogeneous parts became compounded. How ſtrange that we ſhould read an author's book with great pleaſure; that we ſhould ſay, this man has no ſtuff in him; all is of conſequence; here is a character uncontaminated with that rubbiſh which we ſee in ſo many other men—and after this, to meet the garb of ſo much littleneſs!

The 6th, 7th, and 8th. The Duke of Liancourt having an intention of taking a farm in his own hands, to be conducted on improved principles after the Engliſh manner, he deſired me to accompany him and my friend Lazowſki, to Liancourt, to give my opinion of the lands, and of the beſt means towards executing the project, which I very readily complied with. I was here witneſs to a ſcene which made me ſmile: at no great diſtance from the *chateau* of Liancourt, is a piece of waſte land, cloſe to the road, and belonging to the duke. I ſaw ſome men very buſy at work upon it, hedging it in, in ſmall diviſions; levelling, and digging, and beſtowing much labour for ſo poor a ſpot. I aſked the ſteward if he thought that land worth ſuch an expence? He replied, that the poor people in the town, upon the revolution taking place, declared that the poor were the nation; that the waſte belonged to the nation; and, proceeding from theory to practice, took poſſeſſion, without any further authority, and began to cultivate; the duke not viewing their induſtry with any diſpleaſure, would offer no oppoſition to it. This circumſtance ſhews the univerſal ſpirit that is gone forth; and proves, that were it puſhed a little farther, it might prove a ſerious matter for all the property in the kingdom. In this caſe, however, I cannot but commend it; for if there be one public nuiſance greater than another, it is a man preſerving the poſſeſſion of

waſte land, which he will neither cultivate himſelf, nor let others cultivate. The miſerable people die for want of bread, in the ſight of waſtes that would feed thouſands. I think them wiſe, and rational, and philoſophical, in ſeizing ſuch tracks: and I heartily wiſh there was a law in England for making this action of the French peaſants a legal one with us.——72 miles.

The 9th. At breakfaſt this morning in the Thuilleries. Monſieur Deſmarets, of the Academy of Sciences, brought a *Memoire, preſentée par la Societé Royale, d'Agriculture, a l'Aſſemblée Nationale*, on the means of improving the agriculture of France; in which, among other things, they recommend great attention to bees, to panification, and to the obſtetrick art. On the eſtabliſhment of a free and patriotic government, to which the national agriculture might look for new and halcyon days, theſe were objects doubtleſs of the firſt importance. There are ſome parts of the memoir that really merit attention. Called on my fellow traveller, Monſ. Nicolay, and find him a conſiderable perſon; a great hotel; many ſervants; his father a marechal of France, and himſelf firſt preſident of a chamber in the Parliament of Paris, having been elected a deputy, by the nobility of that city, for the ſtates general, but declined accepting it; he has deſired I would dine with him on Sunday, when he promiſes to have Monſ. Decretot, the celebrated manufacturer and deputy of Louviers. At the National Aſſembly—The Count de Mirabeau, ſpeaking upon the queſtion of the members of the chamber of vacation, in the parliament of Rennes, was truly eloquent—ardent, lively, energetic, and impetuous. At night to the aſſembly of the Ducheſs d'Anville; the Marquis and Madame Condorcet there, &c. not a word but politics.

The 10th. The chief leaders in the National Aſſembly, are, Target, Chapellier, Mirabeau, Bernave, Volney the traveller, and, till the attack upon the property of the clergy, l'Abbé Syeyes; but he has been ſo much diſguſted by that ſtep, that he is not near ſo forward as before. The violent democrats, who have the reputation of being ſo much republican in principle, that they do not admit any political neceſſity for having even the name of a king, are called the *enragés*. They have a meeting at the Jacobins, called the revolution club, which aſſembles every night, in the very room in which the famous league was formed, in the reign of Henry III.; and they are ſo numerous, that all material buſineſs is there decided, before it is diſcuſſed by the National Aſſembly. I called this morning on ſeveral perſons, all of whom are great democrats; and mentioning this circumſtance to them, as one which favoured too much of a Paris junto governing the kingdom, an idea, which muſt, in the long run, be unpopular and hazardous; I was anſwered, that the predominancy which Paris aſſumed, at preſent, was abſolutely neceſſary for the ſafety of the whole nation; for if nothing were done, but by procuring a previous common conſent, all great opportunities would be loſt, and the National Aſſembly left conſtantly expoſed to the danger of a counter-revolution. They, however, admitted, that it did create great jealouſies, and no where more than at Verſailles, where ſome plots (they added) are, without doubt, hatching at this moment, which have the King's perſon for their object: riots are frequent there, under pretence of the price of bread: and ſuch movements are certainly very dangerous, for they cannot exiſt ſo near Paris, without the ariſtocratical party of the old government endeavouring to take advantage of them, and to turn them to a very different end, from what was, perhaps, originally intended. I remarked, in all theſe converſations, that the belief of plots, among the diſguſted party, for ſetting the King at liberty, is general; they ſeem almoſt perſuaded, that the revolution will not be abſolutely finiſhed before ſome ſuch attempts are made; and it is curious to obſerve, that the general voice is, that if an attempt were to be made, in ſuch a manner as to have the leaſt appearance of ſucceſs, it would undoubtedly

edly coſt the King his life: and ſo changed is the national character, not only in point of affection for the perſon of their prince, but alſo in that ſoftneſs and humanity, for which it has been ſo much admired, that the ſuppoſition is made without horror or compunction. In a word, the preſent devotion to liberty is a ſort of rage; it abſorbs every other paſſion, and permits no other object to remain in view than what promiſes to confirm it. Dine with a large party at the Duke de la Rochefoucauld's; ladies and gentlemen, and all equally politicians; but I may remark another effect of this revolution, by no means unnatural, which is, that of leſſening, or rather reducing to nothing, the enormous influence of the ſex; they mixed themſelves before in every thing, in order to govern every thing: I think I ſee an end to it very clearly. The men in this kingdom were puppets, moved by their wires, who, inſtead of giving the *ton*, in queſtions of national debate, muſt now receive it, and muſt be content to move in the political ſphere of ſome celebrated leader—that is to ſay, they are, in fact, ſinking into what nature intended them for; they will become more amiable, and the nation better governed.

The 11th. The riots at Verſailles are ſaid to be ſerious; a plot is talked of, for eight hundred men to march, armed, to Paris, at the inſtigation of ſomebody, to join ſomebody; the intention, to murder La Fayette, Bailly, and Necker; and very wild and improbable reports are propagated every moment. They have been ſufficient to induce Monſ. La Fayette to iſſue, yeſterday, an order concerning the mode of aſſembling the miſſitia, in caſe of any ſudden alarm. Two pieces of cannon, and eight hundred men, mount guard at the Thuilleries every day. See ſome royaliſts this morning, who aſſert, that the public opinion in the kingdom is changing apace; that pity for the King, and diſguſt at ſome proceedings of the Aſſembly, have lately done much: they ſay, that any attempt at preſent to reſcue the King would be abſurd, for his preſent ſituation is doing more for him than force could effect, at this moment, as the general feelings of the nation are in his favour. They have no ſcruple in declaring, that a well concerted vigorous effort would place him at the head of a powerful army, which could not fail of being joined by a great, diſguſted, and injured body. I remarked, that every honeſt man muſt hope no ſuch event would take place; for if a counter-revolution ſhould be effected, it would eſtabliſh a deſpotiſm, much heavier than ever France experienced. This they would not allow; on the contrary, they believed, that no government could, in future, be ſecure, that did not grant to the people more extenſive rights and privileges than they poſſeſſed under the old one. Dine with my brother traveller, the Count de Nicolay; among the company, as the count promiſed me, was Monſ. Decretot, the celebrated manufacturer of Louviers, from whom I learned the magnitude of the diſtreſſes at preſent in Normandy. The cotton mills which he had ſhewn me, laſt year, at Louviers, have ſtood ſtill nine months; and ſo many ſpinning jennies have been deſtroyed by the people, under the idea that ſuch machines were contrary to their intereſts, that the trade is in a deplorable ſituation. In the evening, accompanied Monſ. Lazowſki to the Italian opera, *La Berbiera di Seviglia*, by Paieſello, which is one of the moſt agreeable compoſitions of that truly great maſter. Mandini and Raffanelli excellent, and Baletti a ſweet voice. There is no ſuch comic opera to be ſeen in Italy, as this of Paris, and the houſe is always full: this will work as great a revolution in French muſic, as ever can be wrought in French government. What will they think, by and by, of Lully and Rameau? And what a triumph for the manes of Jean Jaques!

The 12th. To the National Aſſembly:—a debate on the conduct of the chamber of vacation in the parliament of Rennes, continued. Monſ. l'Abbé Maury, a zealous royaliſt, made a long and eloquent ſpeech, which he delivered with great fluency and preciſion, and without any notes, in defence of the parliament: he replied to what had been

been urged by the Count de Mirabeau, on a former day, and ſpoke ſtrongly on his unjuſtifiable call on the people of Bretagne, to a *redoubtable denombrement*. He ſaid, that it would better become the members of ſuch an aſſembly, to count their own principles and duties, and the fruits of their attention, to the privileges of the ſubject, than to call for a *denombrement*, that would fill a province with fire and bloodſhed. He was interrupted by the noiſe and confuſion of the aſſembly, and of the audience, ſix ſeveral times; but it had no effect on him; he waited calmly till it ſubſided, and then proceeded, as if no interruption had been given. The ſpeech was a very able one, and much reliſhed by the royaliſts; but the *enragés* condemned it, as good for nothing. No other perſon ſpoke without notes; the Count de Clermont read a ſpeech that had ſome brilliant paſſages, but by no means an anſwer to l'Abbé Maury, as indeed it would have been wonderful if it were, being prepared before he heard the Abbé's oration. It can hardly be conceived how flat this mode of debate renders the tranſactions of the Aſſembly. Who would be in the gallery of the Engliſh Houſe of Commons, if Mr. Pitt were to bring a written ſpeech, to be delivered on a ſubject on which Mr. Fox was to ſpeak before him? And in proportion to its being unintereſting to the hearer is another evil, that of lengthening their ſittings, ſince there are ten perſons who will read their opinions, to one that is able to deliver an *impromptu*. The want of order, and every kind of confuſion, prevails now almoſt as much as when the Aſſembly ſat at Verſailles. The interruptions given are frequent and long; and ſpeakers, who have no right, by the rules to ſpeak, will attempt it. The Count de Mirabeau preſſed to deliver his opinion after the Abbé Maury; the preſident put it to the vote, whether he ſhould be allowed to ſpeak a ſecond time, and the whole houſe roſe up to negative it; ſo that the firſt orator of the Aſſembly has not the influence even to be heard to explain—we have no conception of ſuch rules; and yet their great number muſt make this neceſſary. I forgot to obſerve, that there is a gallery at each end of the ſaloon, which is open to all the world; and ſide ones for admiſſion of the friends of the members by tickets: the audience in theſe galleries are very noiſy: they clap, when any thing pleaſes them, and they have been known to hiſs; an indecorum, which is utterly deſtructive of freedom of debate. I left the houſe before the whole was finiſhed, and repaired to the Duke of Liancourt's apartments in the Thuilleries, to dine with his cuſtomary party of deputies; Meſſ. Chapellier and Demeuſniers were there, who had both been preſidents, and are ſtill members of conſiderable diſtinction; M. Volney, the celebrated traveller, alſo was preſent; the Prince de Poix, the Count de Montmorenci, &c. On our waiting for the Duke of Liancourt, who did not arrive till half after ſeven, with the greateſt part of the company, the converſation almoſt entirely turned upon a ſtrong ſuſpicion entertained of the Engliſh having made a remittance for the purpoſe of embroiling matters in the kingdom. The Count de Thiard, *cordon blue*, who commands in Bretagne, ſimply ſtated the fact, that ſome regiments at Breſt had been regular in their conduct, and as much to be depended on as any in the ſervice; but that, of a ſudden, money had found its way among the men in conſiderable ſums, and from that time their behaviour was changed. One of the deputies demanding at what period, he was anſwered *; on which he immediately obſerved, that it followed the remittance of 1,100,000 livres (48,125l.) from England, that had occaſioned ſo much conjecture and converſation. This remittance which had been particularly enquired into, was ſo myſterious and obſcure, that the naked fact only could be diſcovered; but every perſon preſent aſſerted the truth of it. Other gentlemen united the two facts, and were ready to ſuppoſe them connected. I remarked,

* It was a late tranſaction.

that if England had really interfered, which appeared to me incredible, it was to be preſumed, that it would have been either in the line of her ſuppoſed intereſt, or in that of the King's ſuppoſed inclination; that theſe happened to be exactly the ſame, and if money were remitted from that kingdom, moſt aſſuredly it would be to ſupport the falling intereſt of the crown, and by no means to detach from it any force whatever; in ſuch a caſe remittance from England might go to Metz, for keeping troops to their duty, but would never be ſent to Breſt to corrupt them, the idea of which was groſsly abſurd. All ſeemed inclined to admit the juſtneſs of this remark, but they adhered to the two facts, in whatever manner they might, or might not, be connected. At this dinner, according to cuſtom, moſt of the deputies, eſpecially the younger ones, were dreſſed *au poliſſon*, many of them without powder in their hair, and ſome in boots; not above four or five were neatly dreſſed. How times are changed! When they had nothing better to attend to, the faſhionable Pariſians were correctneſs itſelf, in all that pertained to the *toilette*, and were, therefore, thought a frivolous people; but now they have ſomething of more importance than dreſs to occupy them; and the light airy character that was uſually given them, will have no foundation in truth. Every thing in this world depends on government.

The 13th. A great commotion among the populace late laſt night, which is ſaid to have ariſen on two accounts—one to get at the Baron de Beſneval, who is in priſon, in order to hang him; the other to demand bread at 2*ſ.* the pound. They eat it at preſent at the rate of twenty-two millions a-year cheaper than the reſt of the kingdom, and yet they demand a farther reduction. However, the current diſcourſe is, that Favras, an adventurer alſo in priſon, muſt be hanged to ſatisfy the people; for as to Beſneval, the Swiſs cantons have remonſtrated ſo firmly, that they will not dare to execute him. Early in the morning, the guards were doubled, and eight thouſand horſe and foot are now patrolling the ſtreets. The report of plots, to carry off the King, is in the mouth of every one; and it is ſaid, theſe movements of the people, as well as thoſe at Verſailles, are not what they appear to be, mere mobs, but inſtigated by the ariſtocrats; and if permitted to riſe to ſuch a height as to entangle the Paris militia, will prove the part only of a conſpiracy againſt the new government. That they have reaſon to be alert is undoubted; for though there ſhould actually be no plots in exiſtence, yet there is ſo great a temptation to them, and ſuch a probability of their being formed, that ſupineneſs would probably create them. I have met with the lieutenant-colonel of a regiment of horſe, who is come from his quarters, and who aſſerts, that his whole regiment, officers and men, are now at the King's devotion, and would march wherever he called, and would execute whatever he ordered, not contrary to their ancient feelings; but that they would not have been inclined to be ſo obedient before he was brought to Paris; and from the converſation he has had with the officers of other regiments, he believes that the ſame ſpirit pervades their corps alſo. If any ſerious plans have been laid for a counter-revolution, or for carrying off the King, and their execution has been, or ſhall be prevented, poſterity will be much more likely to have information of it than this age. Certainly the eyes of all the ſovereigns, and of all the great nobility in Europe, are on the French revolution; they look with amazement, and even with terror, upon a ſituation which may poſſibly be hereafter their own caſe; and they muſt expect, with anxiety, that ſome attempts will be made to reverſe an example, that will not want copies, whenever the period is favourable to make them. Dine at the Palais Royal, with a ſelect party; politicians they muſt be, if they are Frenchmen. The queſtion was diſcuſſed, Are the plots and conſpiracies of which we hear ſo much at preſent, real, or are they invented by the leaders of the revolution, to keep up the

ſpirits of the militia, in order to enable themſelves to ſecure the government on its new foundation irreverſibly?

The 14th. Plots! plots!—the Marquis La Fayette, laſt night, took two hundred priſoners in the *Champs Elyſées*, out of eleven hundred that were collected. They had powder and ball but no muſquets. Who? and what are they? is the queſtion; but an anſwer is not ſo eaſily to be had. *Brigands*, according to ſome accounts, that have collected in Paris for no good purpoſe; people from Verſailles by others; Germans by a third: but every one would make you believe, they are an appendix to a plot laid for a counter-revolution. Reports are ſo various and contradictory, that no dependence is to be placed on them; nor credit given to one-tenth of what is aſſerted. It is ſingular, and has been much commented on, that La Fayette would not truſt his ſtanding troops, as they may be called, that is the eight thouſand regularly paid, and of whom the French guards form a conſiderable portion, but he took, for the expedition, the *bourgeoiſe* only; which has elated the latter as much as it has diſguſted the former. The moment ſeems big with events; there is an anxiety, an expectation, an uncertainty, and ſuſpence that is viſible in every eye one meets; and even the beſt informed people, and the leaſt liable to be led away by popular reports, are not a little alarmed at the apprehenſion of ſome unknown attempt that may be made to reſcue the King, and overturn the National Aſſembly. Many perſons are of opinion, that it would not be difficult to take the King, Queen, and Dauphin away, without endangering them, for which attempt the Thuilleries is particularly well ſituated, provided a body of troops, of ſufficient force, were in readineſs to receive them. In ſuch a caſe, there would be a civil war, which, perhaps, would end in deſpotiſm, whatever party came off victorious; conſequently ſuch an attempt, or plan, could not originate in any boſom from true patriotiſm. If I have a fair opportunity to paſs much of my time in good company at Paris, I have alſo no ſmall trouble in turning over books, MSS. and papers, which I cannot ſee in England: this employs many hours a day, with what I borrow from the night, in making notes. I have procured alſo ſome public records, the copying of which demands time. He who wiſhes to give a good account of ſuch a kingdom as France, muſt be indefatigable in the ſearch of materials; for let him collect with all the care poſſible, yet when he comes to ſit down coolly to the examination and arrangement, will find, that much has been put into his hands, of no real conſequence, and more, poſſibly, that is abſolutely uſeleſs.

The 15th. To the Palais Royal, to view the pictures of the Duke of Orleans, which I had tried once or twice before to do in vain. The collection is known to be very rich in pieces of the Dutch and Flemiſh maſters; ſome finiſhed with all the exquiſite attention which that ſchool gave to minute expreſſion. But it is a *genre* little intereſting, when the works of the great Italian artiſts are at hand: of theſe the collection is one of the firſt in the world: Raphael, Hanibal Carracci, Titian, Dominichino, Correggio, and Paul Veroneſe. The firſt picture in the collection, and one of the fineſt that ever came from the eaſel, is that of the three Maries, and the dead Chriſt, by H. Carracci; the powers of expreſſion cannot go further. There is the St. John of Raphael, the ſame picture as thoſe of Florence and Bologna; and an inimitable Virgin and Child, by the ſame great maſter. A Venus bathing, and a Magdalen, by Titian. Lucretia, by Andrea del Sarto. Leda, by Paul Veroneſe, and alſo by Tintoretto. Mars and Venus, and ſeveral others, by Paul Veroneſe. The naked figure of a woman, by Bonieu, a French painter, now living, a pleaſing piece. Some noble pictures, by Pouſſin and Le Seur. The apartments muſt diſappoint every one:—I did not ſee one good room, and all inferior to the rank and immenſe fortune of the poſſeſſor, certainly the

firſt

or a dozen other elections were made. In this club, the buſineſs that is to be brought into the National Aſſembly is regularly debated; the motions are read, that are intended to be made there, and rejected or corrected and approved. When theſe have been fully agreed to, the whole party are engaged to ſupport them. Plans of conduct are there determined; proper perſons nominated for being of committees, and preſidents of the Aſſembly named. And I may add, that ſuch is the majority of numbers, that whatever paſſes in this club, is almoſt ſure to paſs in the Aſſembly. In the evening at the Ducheſs d'Anville's, in whoſe houſe I never failed of ſpending my time agreeably.

One of the moſt amuſing circumſtances of travelling into other countries, is the opportunity of remarking the difference of cuſtoms amongſt different nations in the common occurrences of life. In the art of living, the French have generally been eſteemed by the reſt of Europe to have made the greateſt proficiency, and their manners have been accordingly more imitated, and their cuſtoms more adopted than thoſe of any other nation. Of their cookery, there is but one opinion; for every man in Europe, that can afford a great table, either keeps a French cook, or one inſtructed in the ſame manner. That it is far beyond our own, I have no doubt in aſſerting. We have about half a dozen real Engliſh diſhes, that exceed any thing, in my opinion, to be met with in France; by Engliſh diſhes I mean, a turbot and lobſter ſauce—ham and chicken—turtle—a haunch of veniſon—a turkey and oyſters—and after theſe there is an end of an Engliſh table. It is an idle prejudice to claſs roaſt beef among them; for there is not better beef in the world than at Paris. Large handſome pieces were almoſt conſtantly on the conſiderable tables I have dined at. The variety given by their cooks, to the ſame thing, is aſtoniſhing; they dreſs an hundred diſhes in an hundred different ways, and moſt of them excellent; and all ſorts of vegetables have a ſavourineſs and flavour, from rich ſauces, that are abſolutely wanted to our greens boiled in water. This variety is not ſtriking, in the compariſon of a great table in France with another in England; but it is manifeſt, in an inſtant, between the tables of a French and Engliſh family of ſmall fortune. The Engliſh dinner, of a joint of meat and a pudding, as it is called, or *pot luck*, with a neighbour, is bad luck in England; the ſame fortune in France, gives, by means of cookery only, at leaſt four diſhes to one among us, and ſpreads a ſmall table incomparably better. A regular deſert with us is expected at a conſiderable table only, or at a moderate one, when a formal entertainment is given; in France it is as eſſential to the ſmalleſt dinner as to the largeſt; if it conſiſt of a bunch of dried grapes only, or an apple, it will be as regularly ſerved as the ſoup. I have met with perſons in England, who imagine the ſobriety of a French table carried to ſuch a length, that one or two glaſſes of wine are all that a man can get at dinner; this is an error: your ſervant mixes the wine and water in what proportion you pleaſe; and large bowls of clean glaſſes are ſet before the maſter of the houſe, and ſome friends of the family, at different parts of the table, for ſerving the richer and rarer ſorts of wines, which are drunk in this manner freely enough. The whole nation are ſcrupulouſly neat in refuſing to drink out of glaſſes uſed by other people. At the houſe of a carpenter or blackſmith, a tumbler is ſet to every cover. This reſults from the common beverage being wine and water; but if at a large table, as in England, there were porter, beer, cyder, and perry, it would be impoſſible for three or four tumblers or goblets to ſtand by every plate; and equally ſo for the ſervants to keep ſuch a number ſeparate and diſtinct. In table-linen, they are, I think, cleaner and wiſer than the Engliſh; that the change may be inceſſant, it is every where coarſe. The idea of dining without a napkin ſeems ridiculous to a Frenchman, but in England we dine at the tables

of

of people of tolerable fortune, without them. A journeyman carpenter in France has his napkin as regularly as his fork; and at an inn, the *fille* always lays a clean one to every cover that is ſpread in the kitchen, for the loweſt order of pedeſtrian travellers. The expence of linen in England is enormous, from its fineneſs; ſurely a great change of that which is coarſe, would be much more rational. In point of cleanlineſs, I think the merit of the two nations is divided; the French are cleaner in their perſons, and the Engliſh in their houſes; I ſpeak of the maſs of the people, and not of individuals of conſiderable fortune. A *bidet* in France is as univerſally in every apartment, as a baſon to waſh your hands, which is a trait of perſonal cleanlineſs I wiſh more common in England; on the other hand their neceſſary houſes are temples of abomination; and the practice of ſpitting about a room, which is amongſt the higheſt as well the loweſt ranks, is deteſtable; I have ſeen a gentleman ſpit ſo near the clothes of a ducheſs, that I have ſtared at his unconcern. In every thing that concerns the ſtables, the Engliſh far exceed the French; horſes, grooms, harneſs, and change of equipage; in the provinces you ſee cabriolets of the laſt century; an Engliſhman, however ſmall his fortune may be, will not be ſeen in a carriage of the faſhion of forty years paſt; if he cannot have another, he will walk on foot. It is not true that there are no complete equipages at Paris, I have ſeen many; the carriage, horſes, harneſs, and attendance, without fault or blemiſh;—but the number is certainly very much inferior to what are ſeen at London. Engliſh horſes, grooms, and carriages, have been of late years largely imported. In all the articles of fitting up and furniſhing houſes, including thoſe of all ranks in the eſtimate, the Engliſh have made advances far beyond their neighbours. Mahogany is ſcarce in France, but the uſe of it is profuſe in England. Some of the hotels in Paris are immenſe in ſize, from a circumſtance which would give me a good opinion of the people, if nothing elſe did, which is the great mixture of families. When the eldeſt ſon marries, he brings his wife home to the houſe of his father, where there is an apartment provided for them; and if a daughter do not wed an eldeſt ſon, her huſband is alſo received into the family, in the ſame way, which makes a joyous number at every table. This cannot altogether be attributed to œconomical motives, though they certainly influence in many caſes, becauſe it is found in families poſſeſſing the firſt properties in the kingdom. It does with French manners and cuſtoms, but in England it is ſure to fail, and equally ſo amongſt all ranks of people: may we not conjecture, with a great probability of truth, that the nation in which it ſucceeds is therefore better tempered? Nothing but good humour can render ſuch a jumble of families agreeable, or even tolerable. In dreſs they have given the *ton* to all Europe for more than a century; but this is not among any but the higheſt rank an object of ſuch expence as in England, where the maſs of mankind wear much better things (to uſe the language of common converſation) than in France: this ſtruck me more amongſt ladies who, on an average of all ranks, do not dreſs at one half of the expence of Engliſh women. Volatility and changeableneſs are attributed to the French as national characteriſtics,—but in the caſe of dreſs with the groſſeſt exaggeration. Faſhions change with ten times more rapidity in England, in form, colour, and aſſemblage; the viciſſitudes of every part of dreſs are fantaſtic with us: I ſee little of this in France; and to inſtance the mode of dreſſing the gentlemen's hair, while it has been varied five times at London, it has remained the ſame at Paris. Nothing contributes more to make them a happy people, than the chearful pliancy of diſpoſition with which they adapt themſelves to the circumſtances of life: this they poſſeſs much more than the high and volatile ſpirits which have been attributed to them; one excellent conſequence is, a greater exemption from the extravagance of living beyond their fortunes, than is met with in England. In the higheſt ranks of life, there

are inſtances in all countries; but where one gentleman of ſmall property, in the provinces of France runs out his fortune, there are ten ſuch in England that do it. In the blended idea I had formed of the French character from reading, I am diſappointed as to three circumſtances, which I expected to find predominant. On compariſon with the Engliſh, I looked for great talkativeneſs, volatile ſpirits, and univerſal politeneſs. I think, on the contrary, that they are not ſo talkative as the Engliſh; have not equally good ſpirits, and are not a jot more polite: nor do I ſpeak of certain claſſes of people, but of the general maſs. I think them, however, incomparably better tempered; and I propoſe it as a queſtion, whether good temper be not more reaſonably expected under an arbitrary, than under a free government.

The 19th. My laſt day in Paris, and, therefore, employed in waiting on my friends, to take leave; amongſt whom, the Duke de Liancourt holds the firſt place; a nobleman, to whoſe uninterrupted, polite, and friendly offices I owe the agreeable and happy hours which I have paſſed at Paris, and whoſe kindneſs continued ſo much, to the laſt, as to require a promiſe, that if I ſhould return to France, his houſe, either in town or country, ſhould be my home. I ſhall not omit obſerving, that his conduct in the revolution has been direct and manly from the very beginning; his rank, family, fortune, and ſituation at court, all united to make him one of the firſt ſubjects in the kingdom; and upon public affairs being ſufficiently embroiled, to make aſſemblies of the nobility neceſſary, his determined reſolution to render himſelf maſter of the great queſtions which were then in debate, was ſeconded by that attention and application which were requiſite in a period, when none but men of buſineſs could be of importance in the ſtate. From the firſt aſſembling of the States General, he reſolved to take the party of freedom; and would have joined the *tiers* at firſt, if the orders of his conſtituents had not prevented it; he deſired them, however, either to conſent to that ſtep or to elect another repreſentative; and, at the ſame time, with equal liberality, he declared, that if ever the duty he owed his country became incompatible with his office at court, he would reſign it; an act that was not only unneceſſary, but would have been abſurd, after the King himſelf had become a party in the revolution. By eſpouſing the popular cauſe, he acted conformably to the principles of all his anceſtors, who in the civil wars and confuſions of the preceding centuries, uniformly oppoſed the arbitrary proceedings of the court. The deciſive ſteps which this nobleman took at Verſailles, in adviſing the King, &c. &c. are known to all the world. He is, undoubtedly to be eſteemed one of thoſe who have had a principal ſhare in the revolution, but he has been invariably guided by conſtitutional motives; for it is certain, that he has been as much averſe from unneceſſary violence and ſanguinary meaſures, as thoſe who were the moſt attached to the ancient government. With my excellent friend Lazowſki, I ſpent my laſt evening; he endeavoured to perſuade me to reſide upon a farm in France, and I enticing him to quit French buſtle for Engliſh tranquillity.

The 20th—25th. By the diligence to London, where I arrived the 25th; though in the moſt commodious ſeat, yet languiſhing for a horſe, which, after all, affords the beſt means of travelling. Paſſing from the firſt company of Paris to the rabble which one ſometimes meets in diligences, is contraſt ſufficient,—but the idea of returning to England, to my family and friends, made all things appear ſmooth, —— 272 miles.

The 30th. To Bradfield; and here terminate, I hope, my travels. After having ſurveyed the agriculture and political reſources of England and Ireland, to do the ſame with France, was certainly a great object, the importance of which animated me to the attempt: and however pleaſing it may be to hope for the ability of giving a better account of the agriculture of France than has ever been laid before the public, yet the

greateſt ſatisfaction I feel, at preſent, is the proſpect of remaining, for the future, on a farm, in that calm and undiſturbed retirement, which is ſuitable to my fortune, and which, I truſt, will be agreeable to my diſpoſition.——72 miles.

PART THE SECOND.

CHAP. I.—*Of the Extent of France.*

THE circumſtances which are moſt apt to command the attention of mankind, for giving importance to a country, are really valuable no farther than as they contribute to the eaſe and proſperity of the inhabitants. Thus the extent of a kingdom is of no other conſequence than affording nouriſhment for a people too numerous to be reaſonably apprehenſive of foreign conqueſt. When a territory is much more conſiderable than for this purpoſe, it tends to inſpire ambitious projects in the minds of the men that govern, which have proved, perhaps, more diſaſtrous than the deficiency of power that endangers the national defence. France, under Lewis XIV. was a remarkable inſtance of this fact. The ſituation to which the ambition of that prince had reduced her immenſe territory, was hardly preferable to that of Holland, in 1672, whoſe misfortunes, flowed from the ſame origin. Of the two extremes, France has undoubtedly more to apprehend from the ambition of her own rulers, than from that of any neighbour. Authorities vary conſiderably in deſcribing the extent of this fine kingdom. The Maréchal de Vauban makes it 30,000 leagues, or 140,940,000 arpents; Voltaire 130,000,000 arpents.—The accuracy of round numbers is always to be doubted. Templeman gives it an extent of 138,837 ſquare geographical miles, of ſixty to a degree; a meaſurement, which renders his tables abſolutely uſeleſs for any purpoſe, but that of comparing one country with another, a degree being ſixty-nine miles and a half, which makes it 119,220,874$\frac{192}{576}$ acres.—Pauſton reduces his meaſure to French arpents, and makes the number 107,590,000. The Encyclopædia, article *France*, aſſigns 100,000,000 of arpents as the contents; and obſerves, that, by Caſſini's maps, the amount is 125,000,000. A late author * calculates it at 105,000,000: and another † at 135,600,000. None of theſe accounts ſeem ſufficiently accurate for the purpoſe of giving a correct idea. The authority on which I am inclined moſt to rely is that of M. Necker ‡, who calculates it (without Corſica) at 26,951 leagues ſquare, of 2282$\frac{2}{7}$ toiſes; this, I find, amounts to 156,024,213 arpents of Paris, or 131,722,295 Engliſh acres. Pauſton, by covering his map with ſhot to every indenture of outline, with the greateſt care, found the kingdom to contain 103,021,840 arpents, each of 100 perch, at 22 feet the perch, or 1344$\frac{4}{9}$ toiſes ſquare to the arpent; inſtead of which the arpent of Paris contains but 900 toiſes:—this meaſurement makes 81,687,016 Engliſh acres §.—Notwithſtanding the credit uſually given to this writer for his accuracy, I muſt here reject his authority in favour of that of M. Necker. Pauſton's calculation, which gives 81,687,016 Engliſh acres to France, aſſigns by the ſame rule to England 24,476,315 ‖; yet Templeman's ſurvey, at 60 miles to a degree, and therefore confeſſedly below the truth, makes it 31,648,000, which, at 69$\frac{1}{2}$ to a degree, are

* L'Impôt Abonné, 4to 1789. † Apologie ſur l'Edict de Nantes. ‡ Oeuvres, 4to. p. 326.

§ I have made this reduction, by valuing, with Pauſton, the French arpent at 1.0000, and the Engliſh 0.7529.

‖ That is 30,869,360 arpents royale, of 22 feet to the perch.

42,463,26$\frac{176}{576}$

42,463,264$\frac{15}{18}$; a greater difference than is found between them in eſtimating the ſurface of France, which, by Pauſton, is made 81,587,016 Engliſh acres, with a general admiſſion of about a million more; and by Templeman, 88,855,680; or at 69½, is 119,220,874$\frac{192}{250}$.

It is vain to attempt reconciling theſe contrary accounts. I ſhall therefore adopt, with the author of the *Credit Nationale* *, the eſtimation of M. Necker, which ſuppoſes 156,024,113 arpents of Paris, or 131,722,295 Engliſh acres.

For a compariſon of the French and Engliſh dominions, I muſt for the latter adopt Templeman's meaſurement, who gives to

England,	49,450 ſquare miles.	France,	138,837 ſquare miles,
Scotland,	27,794		
Ireland,	27,457		
	104,701		

Calculated at 60 to a degree; but at 69½ theſe numbers become,

	Sq. miles.	Acres.		Sq. miles.	Acres.
England,	66,348	42,463,264	France,	186,282	119,220,874.
Scotland,	37,292	23,867,016			
Ireland,	36,840	23,577,630			
	140,480	89,907,910			

Hence it appears, that France, according to theſe proportions, contains 29,312,964 acres more than the three Britiſh kingdoms; and it is to be noted, that as the extent of France is taken from the more modern and correct authorities, whence M. Necker deduced his meaſurement at 131,722,295 Engliſh acres, which is conſequently much more exact than that of Templeman; ſo it is equally fair to ſuppoſe, that the latter is as much below the fact in the contents of our iſlands, as he was in thoſe of France. Corrected by this rule, the areas will be

England †,	46,915,993 ‡ acres.	France,	131,722,295 acres.
Scotland,	26,369,695		
Ireland,	26,049,961		
	99,335,589		

Theſe numbers, I am upon the whole inclined to believe, are as near to the truth as may reaſonably be expected from calculations, when the *data* are not abſolutely correct.

CHAP. II.—*Of the Soil, and Face of the Country.*

THE modern French geographers, in a branch of that ſcience, to which they have properly given the epithet *phyſical*, have divided the kingdom into what they call *baſſins*; that is to ſay, into ſeveral great plains, through which flow the principal rivers, and which are formed of ſeveral ridges of mountains, either *original*, or as they term it, of granite, or ſecondary of calcareous and other materials. Of theſe *baſſins* the chief

* Monſ. Jorré, 8vo. 1789. He calculates on 27,000 leagues, at 2282 toiſes, 5786 arpents of Paris in a league; or in France 156,225,720 arpents. P. 95.

† It may be remarked, that Dr. Grew calculated the real contents of England and Wales at 46,080,000 acres. *Philoſophical Tranſactions*, No 330, p. 266. Which ſeems a confirmation that we are not far from the truth.

‡ Equal to 73,306 ſquare miles.

are, 1. Of the Loire and all the rivers that fall into it. 2. Of the Seine and its branches. 3. Of the Garonne. 4. Of the Rhone and Soane. There are likewiſe ſome ſmaller ones, but of much leſs account. The reader who wiſhes to conſult the detail of theſe, may turn to the *Journal Phyſique*, tom. 30. for a memoir by M. la Metherie.

In reſpect to the geoponic diviſion of the ſoils of the kingdom, the rich calcareous plain of the north-eaſtern quarter firſt calls for our attention. I croſſed this in ſeveral directions, and from the obſervations I made, the following are the limits I would aſſign to it. On the coaſt it may be ſaid to extend from Dunkirk to Carentan in Normandy, for the northern promontory of that province, which projects into the ſea at Cherbourg, &c. is of a different ſoil. In M. la Metherie's map is marked a ridge of granite mountains in this promontory; I ſhould remark, that I ſaw nothing in that country which deſerves the name of a mountain, any more than at Alençon; merely hills, and thoſe not conſiderable ones. I may terminate the rich track at Carentan, as thence to Coutances the land is chiefly poor and ſtony, and holds, with many variations, quite to Breſt. In the line a little to the S. of the coaſt, before Caen, is ſeen the firſt conſiderable change of ſoil from Calais; it there becomes a red ſtone braſh; this rich tract is here, therefore, narrow. On re-entering Normandy on the ſide of Alençon, from Anjou and Maine, I firſt met with the rich loams on a calcareous bottom at Beaumont; at Alençon there is a noble ſoil, which I then loſt no more in advancing northwards. In another line I entered this rich diſtrict about ten miles to the ſouth of Tours. The hills on the Loire, though all calcareous that I noticed, are not all rich, though on ſome the ſoil is deep and good. Directly to the ſouth of Orleans begins the miſerable Sologne, which, though on a calcareous bottom of marl, is too poor to be included in the preſent diſtrict. From Orleans to Paris, and alſo Fontainbleau, no exceptions are to be made, but in the ſmall ſpace of poor ſand ſtone in the royal foreſt of the latter town. In a fourth direction this diſtrict is entered, but not ſo deciſively as in the preceding caſes, a few miles to the ſouth of Nemours. At Croiſiere the firſt chalk is viſible to the traveller. Advancing to the N. E. very good land is found near Nangis, and then bearing N. I entered the fertile plain of Brie. Some of the vales through which the Marne flows are rich and what I ſaw calcareous; but the hills are poor. The plain of Rheims may be claſſed in the preſent diſtrict, but at Soiſſons and thence due N. all is excellent. Theſe limits incloſe one of the fineſt territories that I ſuppoſe is to be found in Europe. From Dunkirk to Nemours is not leſs than one hundred and eighty miles in a right line. From Soiſſons to Carentan is another right line of about two hundred miles. From Eu, on the Norman coaſt, to Chartres is one hundred miles; and though the breadth of this rich diſtrict at Caen, Bayeux, &c. is not conſiderable, yet the whole will be found to contain not a trifling proportion of the whole kingdom. This noble territory includes the deep, level, and fertile plain of Flanders, and part of Artois, than which a richer ſoil can hardly be deſired to repay the induſtry of mankind; two, three, and even four feet deep of moiſt and putrid, but friable and mellow loam, more inclining to clay than ſand, on a calcareous bottom, and from its marine origin (for there can be little doubt but that the whole plain of Flanders and Holland has been covered by the ſea, long ſince our globe has taken its preſent appearance) abounding with particles that add to the common fertility, reſulting from ſuch compounds found in other ſituations. The putridity of the *humus* in Flanders and its poſition, being a dead level, are the principal circumſtances that diſtinguiſh it from the better ſoils of the reſt of this fertile part of Europe. Every ſtep of the way from the very gate of Paris to near Soiſſons, and thence to Cambray, with but little variation of ſome inferior hills of ſmall extent, is a ſandy loam of an admirable texture, and commonly of conſiderable depth. About Meaux it

is

is to be ranked among the fineſt in the world; they call it *bleaunemeau*—it tends much towards an impalpable powder, which betrays few ſigns of ſand, even when, to the eye, it has the appearance of a ſandy loam. It is of an admirable texture and friability. Monſ. Gibert informed me, that it is of the depth of eighteen feet where his well is digged, and under it a ſtratum of white marl, found under the whole country, at different depths. This marl has the appearance of a conſolidated paſte. The line through Picardy is inferior, yet, for the moſt part, excellent. But all the arable part of Normandy, which is within theſe limits, is of the ſame rich friable ſandy loam, to a great depth; that from Bernay to Elbœuf can ſcarcely be exceeded; four to five feet deep of a reddiſh brown loam on a chalk bottom, and without a ſtone. As to the paſtures of the ſame province, we have, I believe, nothing either in England or Ireland equal to them; I hold the vale of Limerick to be inferior. The famous Pays de Beauce, which I croſſed between Arpajon and Orleans, reſembles the vales of Meaux and Senlis; it is not, however, in general, ſo deep as the former. The limits I have traced are thoſe of great fertility; but the calcareous diſtrict, and even of chalk, is much more extenſive. To the E. it reaches acroſs Champagne; a ſtrong change, not having occurred to me till about St. Menehould. From Metz to Nancy all is calcareous, but not chalk. Lime-ſtone land I found plentifully in the ſouthern parts of Alſace; and from Befort acroſs Franche Compté to Dole, all the ſtones I tried, and many from quarries were calcareous. Immenſe diſtricts in Dauphiné and Provence, &c. &c. are the ſame; I ſhall therefore only obſerve, that I remarked the chalk country to extend E. to about St. Menehould, and S. to Nemours and Montargis * in one line. In another, that all of the Angoumois which I ſaw is the ſame; much in Poitou, and through Tourain to the Loire. Had I penetrated more to the W. I ſhould probably have found the chalk of Angoumois, and that of the Loire to be connected uninterruptedly. Moſt of the courſe of the Loire is, I believe, chalk, and the whole of it calcareous. Hence it appears, that the chalk country of France is of very conſiderable extent; not leſs than two hundred miles E. and W. and about as much, but more irregularly, N. and S. and compriſes, by far, the richeſt and moſt fertile provinces of the kingdom.

The next conſiderable diſtrict, for fertility, is that which I may call, without impropriety, the plain of the Garonne. Paſſing to the S. from Limoſin, it is entered about Creiſſenſac, with the province of Quercy, and improves all the way to Montauban and Touloufe, where it is one of the fineſt levels of fertile ſoil that can any where be ſeen. It continues, but not equally fruitful, to the foot of the Pyrenees, by St. Gaudents, &c. very even to the eye, when viewed from the promenade at Montauban, which commands one of the richeſt, as well as magnificent proſpects, to be met with in France. This plain I found, however, to be much indented and irregular; for to the W. of Auch, and all beyond it to Bayonne, is too inferior to be admitted; and to the E. Mirepoix, Pamiers, and Carcaſſonne are among the hills, and all the way from Agen to Bourdeaux, though the river flows through one of the richeſt vallies that is to be ſeen in the world, yet the breadth appeared to be every where inconſiderable. Through all this plain, wherever the ſoil is found excellent, it conſiſts uſually of a deep mellow friable ſandy loam, with moiſture ſufficient for the production of any thing; much of it is calcareous. White lime-ſtone and white chalky loams are found about Cahors, &c. and white loams more tenacious near Montauban. At Tonnance, on the Garonne, they are red, and apparently as good at ten feet deep as on the ſurface.

* I believe much further: and there is the more reaſon to think ſo, becauſe Mr. Townſhend found th in another road it reached to Auxere, where he loſt it. *Journey through Spain*, vol. i p. 46

L

In travelling from Narbonne to Beziers, Pezenas, Montpellier, and Niſmes, every one I converſed with repreſented that vale as the moſt fruitful in France. Olives and mulberries, as well as vines, render it very productive; but in point of ſoil (the only circumſtance I conſider at preſent,) much the greater part of it is inferior to all I have named. The Bas Poitou, as I was informed by a perſon who reſides in it, is of a fertility that deſerves to be claſſed with the richeſt ſoils of France, extending eighteen leagues by 12, or 216 ſquare leagues, which, at 5,786 arpents per league, are 249,776 arpents. 100,000 arpents of rich marſhes have been drained there *. Being alſo informed at Nantes, that there was a very rich track to the S. of the Loire, in the quarter of Bourgneuf and Macheoul, I have extended the region of good land to that river, as ſeen in the annexed map.

The narrow plain of Alſace, the whole fertile part of which hardly exceeds the ſurface of one thouſand ſquare miles, muſt be claſſed among the richeſt ſoils of France. It reſembles Flanders a good deal, though inferior to that province. It conſiſts of a deep rich ſandy loam, both moiſt and friable, equal to the large production of all ſorts of crops. A more celebrated diſtrict is the Limagne of Auvergne, a flat and chiefly a calcareous vale, ſurrounded by great ranges of volcanic mountains. It is certainly one of the fineſt ſoils in the world. It commences at Riom; the plain there is of a beautiful dead level of white calcareous loam, the whole ſurface of which is a real marl, but ſo mixed with *humus* as to be of prime fertility. The French naturaliſts, that have examined it, aſſert the depth to be twenty feet of beds of earth, formed of the ruins of what they ſtyle the primitive (granite) and volcanized mountains. At Iſſoire, Dr. Brés ſhewing me his farm, in an inferior part of the Limagne (for the beſt of it reaches no farther than from Riom to Vaires, which is ſcarcely more than twenty miles), made me obſerve, that the river had, in all probability, formed the whole plain, as it was adding rapidly to his land, and had given him a depth very perceptible in a few years, having buried the gravelly ſhingle of its bed, by depoſiting a rich ſurface of ſandy mud. The vale here, on the banks, is ſeven or eight feet deep of rich brown ſandy loam. On the contrary, there are philoſophers who contend for the whole having been a lake. The mountains that ſurround this vale are various. The white argillaceous ſtone, in the hills between Riom and Clermont, is calcareous. The volcanic mountains are found to be better than the others, except in the caſe of *tufa* or cinders, which are ſo burnt as to be good for nothing. The calcareous and clayey ones good, and the baſaltes decompoſed and become clay excellent. Their baſe is commonly granite. The calcareous ſandy ſtones, and the argillaceous calcareous earths are heaped on them by the action of volcanoes, according to the theory of the French philoſophers. The fertility that reſults from the volcanic origin of mountains, has been often remarked, and eſpecially in the caſe of Ætna; the ſame fact appeared in many tracts of country as I paſſed from Le Puy to Montelimart, where many conſiderable mountains are covered with beautiful cheſnuts, and various articles of cultivation, which in diſtricts not volcanic are waſte, or in a great meaſure uſeleſs.

I have now noticed all the diſtricts of France, which, to my knowledge, are of any remarkable fertility: they amount, as it will be ſhown more particularly in another place, to above twenty eight millions of Engliſh acres.

Of the other provinces, Bretagne is generally gravel, or gravelly ſand, commonly deep, and on a gravelly bottom, of an inferior and barren nature, but in many places on ſand ſtone rock. I tried various ſpecimens, but found none calcareous; and having

* *Des Canaux de Navig.* par M. de la Lande, p. 391.

ſeen a ſhip at Morlaix unloading lime-ſtone from Normandy, I may conclude, that the fact does not contradict the concluſion which I drew from the eye. All that I ſaw in the two provinces of Anjou and Maine are gravel, ſand, or ſtone—generally a loamy ſand or gravel; ſome imperfect ſchiſtus on a bottom of rock; and much that would in the weſt of England be called a ſtone braſh, and that would do excellently well for turnips: they have the friability, but want the putrid moiſture and fertile particles of the better loams. Immenſe tracks, in both theſe provinces, are waſte, under ling, fern, furze, &c. but the ſoil of theſe does not vary from the cultivated parts, and, with cultivation, would be equally good. Touraine is better; it contains ſome conſiderable diſtricts, eſpecially to the ſouth of the Loire, where you find good mixed ſandy and gravelly loams on a calcareous bottom; conſiderable tracks in the northern part of the province are no better than Anjou and Maine; and, like them, it is not without its heaths and waſtes. Sologne is one of the pooreſt and moſt unimproved provinces of the kingdom, and one of the moſt ſingular countries I have ſeen. It is flat, conſiſting of a poor ſand or gravel, every where on a clay or marl bottom, retentive of water to ſuch a degree, that every ditch and hold was full of it: the improvement of ſuch a country is ſo obviouſly effected on the eaſieſt principles, that it is a ſatire on the French government, and on the individuals who are owners or occupiers of eſtates in this province, to ſee it remain in ſuch a miſerable condition. Berry is much better, though both ſandy and gravelly; but good loams, and ſome deep, are not wanted in ſome diſtricts, as that of Chateauroux, on quarries, and near Vatan on calcareous ones. La Marche and Limoſin conſiſt of friable ſandy loams; ſome on granite, and others on a calcareous bottom. There are tracts in theſe provinces that are very fertile; and I ſaw none that ſhould be eſteemed ſteril. Of the granite they diſtinguiſh two ſorts; one hard, and full of micaceous particles; the grain rather coarſe, with but little quartz, hardening in the air in maſſes, but becoming a powder when reduced to ſmall pieces;—this is uſed for building. The other ſort is in horizontal ſtrata, mixed with great quantities of ſpar, uſed chiefly for mending roads, which it does in the moſt incomparable manner. I was aſſured at Limoges, that, on the hard granite, there grow neither wheat, vines, nor cheſnuts; but upon the other kind, thoſe plants thrive well: I remarked, that this granite and cheſnuts appeared together on entering Limoſin; and that, in the road to Toulouſe, there is about a league of hard granite without that tree. The rule, however, is not general; for ſo near as to the S. of Souilac, cheſnuts are on a calcareous ſoil. Poitou conſiſts of two diviſions, the upper and the lower; the laſt of which has the reputation of being a much richer country, eſpecially the graſs lands on the coaſt. The ſoil of the upper diviſion is generally a thin loam, on an imperfect quarry bottom—a ſort of ſtone-braſh; in ſome tracts calcareous: it muſt be eſteemed a poor ſoil, though admirably adapted to various articles of cultivation. I have already obſerved, that all I ſaw of Angoumois is chalk, and much of it thin and poor. Thoſe parts of Guienne and Gaſcoign, not included in the rich vale of the Garonne, of which I have already ſpoken, muſt be conſidered in reſpect of ſoil as poor. The landes (heaths of Bourdeaux,) though neither unproductive, nor unimproveable, are in their preſent ſtate to be claſſed amongſt the worſt ſoils of France. I have been aſſured, that they contain two hundred leagues ſquare; and the roots of the Pyrenees are covered with immenſe waſtes, which demand much induſtry to render profitable. Rouſſillon is in general calcareous; much of it flat and very ſtoney, as well as dry and barren: but the irrigated vales are of a moſt exuberant fertility. The vaſt province of Languedoc, in productions one of the richeſt of the kingdom, does not rank high in the ſcale of ſoil: it is by far too ſtoney:—I take ſeven-eighths of it to be mountainous. I travelled near four hundred miles in it, without ſeeing

ing any thing that deſerved the name of an extenſive plain, that of the Garonne, already mentioned (part of which extends within the limits of Languedoc), alone excepted. The productive vale, from Narbonne to Niſmes, is generally but a few miles in breadth; and conſiderable waſtes are ſeen in moſt parts of it. Many of the mountains are productive, from irrigation, as I have obſerved too in the volcanic territory of the Vivarais. Some parts of the vale are however very rich; and indeed there are few finer ſoils in France than what I ſaw near the canal, in going from Beziers to Carcaſſonne. A rich mellow loam, tenacious, and yet friable; in ſome ſtates the particles adhere into clods; in others they recede and melt with friability. Provence and Dauphiné are mountainous countries, with the variation of ſome lovely plains and vallies, which bear a very inconſiderable proportion to the whole. Of theſe two provinces, the former is certainly the drieſt, in point of ſoil, in the kingdom. Rock and quarry-land, with ſandy gravels, abound there; and the courſe of the Durance, which in ſome countries would be a fine vale, is ſo ruined by ſand and ſhingle, that, in a moderate calculation, above 130,000 acres have been deſtroyed, which would have been the fineſt ſoil in the country, if it had not been for that river. All I ſaw in both the provinces is calcareous; and I was informed, that the greater part of the mountains of Provence are ſo. Theſe, towards Barcelonette, and in all the higher parts of the province, are covered with good graſs, that feeds a million of emigrating ſheep, beſides vaſt herds of cattle. With ſuch a ſoil, and in ſuch a climate, a country muſt not be thought unproductive becauſe mountainous. The vales which I ſaw are in general fine: that of the Rhone at Loriol, in Dauphiné, is rich,—an admirable ſandy clay, five or ſix feet deep, on a bed of blue marl with many ſtones in it. But more to the S. from Montelimart to Orange, this great river paſſes through ſoils much inferior. The north plain of this province, as we go from Savoy to Lyons, conſiſts much of a good deep red loam, on a gravel bottom. The county of Venaiſin, or diſtrict of Avignon, is one of the richeſt in the kingdom. Its admirable irrigation, is, of itſelf, ſufficient to make it appear ſo; but I found the ſoil to conſiſt of rich deep loam, with white and calcareous clays. The whole coaſt of Provence is a poor ſtony ſoil, with exceptions of very ſmall ſpaces under happier circumſtances. About Aix, the land is all calcareous, even the clays that are red and ferruginous. This province, however, contains one of the moſt ſingular diſtricts in the kingdom, namely, that of the Crau, which is a ſtony plain to the S. E. of Arles, not containing leſs than 350 ſquare miles, or 224,000 acres. It is abſolutely covered with round ſtones of all ſizes, ſome of which are as large as a man's head. The ſoil under them is not a ſand, but appears to be a kind of cemented rubble of fragments of ſtone, with a ſmall mixture of loam. The naturaliſt who has deſcribed this province, ſays, they are of a calcareous nature, with neither the grain nor texture of flint; in ſome quartzoſe molecules predominate—and others are metallic *. Vegetation is extremely thin, as I ſhall mention more particularly when I treat of the paſturage of ſheep in France.

The Lyonois is mountainous, and what I ſaw of it is poor, ſtony, and rough, with much waſte land. In paſſing from Lyons to Moulins, it is, near Roanne, on the limits of the province, before the gravelly plain of the Loire commences, the ſame which M. La Metherie calls the calcareous plain of Montbriſſon.

Auvergne, though chiefly mountainous, is not a poor province; the ſoil, for a hilly country, is in general above mediocrity, and the higheſt mountains feed vaſt herds of cattle, which are exported to a conſiderable amount. Beſide a variety of volcanic ſoils, Auvergne is covered with granite and gravelly and ſandy loams.

* Hiſt. Nat. de la Povence, 8vo. 3 tom. 1782. tom. 1. p. 290.

The Bourbonnois and Nivernois, form one vaſt plain, through which the Loire and Allier paſs; the predominant ſoil, in much the greater part, is gravel; I believe commonly on a calcareous bottom, but at conſiderable depths. Some tracks are ſandy, which are better than the gravels; and others are very good friable ſandy loams. The whole, in its preſent cultivation, muſt be reckoned amongſt the moſt unproductive provinces of the kingdom, but capable of as great improvement, by a different management as any diſtrict in France.

Burgundy is exceedingly diverſified, as I found in croſſing it from Franche Compté to the Bourbonnois by Dijon, I ſaw the beſt of it; that line is through ſandy and gravelly loams; ſome good vales, ſome mountains, and ſome poor granite ſoils. The ſubdiviſion of the province called Breſſe, is a miſerable country, where the ponds alone, moſtly on a white clay or a marl, amount, as it is aſſerted by an inhabitant *, to ſixty-ſix ſquare leagues of two thouſand toiſes, not much leſs than two hundred and fifty thouſand acres. This is credible from the appearance of them in the map of Caſſini.

Franche Compté abounds with red ferruginous loams, ſchiſtus, gravel, with limeſtone in the mountains very common; and I ſhould remark, that all the ſtones I tried, ſome of which were from quarries between Befort to Dole, effervеſced with acids. From Beſançon to Orechamps the country is rocky, quite to the ſurface much limeſtone; a reddiſh brown loam on rock; with iron forges all over the country. The whole province is very improveable.

Loraine is poor in ſoil; from St. Menehould to the Borders of Alſace I ſaw ſcarcely any other than ſtony ſoils, of various denominations; moſt of them would in England be called ſtone-braſh, or the broken and triturated ſurface of imperfect quarries, mixed by time, foreſt, and cultivation, with ſome loam and vegetable mould—much is calcareous. There are indeed diſtricts of rich, and even deep friable ſandy loams; but the quantity is not conſiderable enough to deſerve attention in a general view. I have already remarked, that the predominant feature of Champagne is chalk; in great tracks it is thin and poor; the ſouthern part, as from Chalons to Troyes, &c. has from its poverty, acquired the name of *pouilleux*, or louſy. The appropriating of ſuch land to ſainfoin is little known there.

I have now made the tour of all the French provinces, and ſhall in general obſerve, that I think the kingdom is ſuperior to England in the circumſtance of ſoil. The proportion of poor land in England, to the total of the kingdom, is greater than the ſimilar proportion in France; nor have they any where ſuch tracts of wretched blowing ſand, as are to be met with in Norfolk and Suffolk. Their heaths, moors, and waſtes, not mountainous; what they term *lande*, and which are ſo frequent in Bretagne, Anjou, Maine, and Guienne, are infinitely better than our northern moors; and the mountains of Scotland and Wales cannot be compared, in point of ſoil, with thoſe of the Pyrenees, Auvergne, Dauphiné, Provence, and Languedoc. Another advantage almoſt ineſtimable is, that their tenacious loams do not take the character of clays, which in ſome parts of England are ſo ſtubborn and harſh, that the expence of culture is almoſt equal to a moderate produce. Such clays as I have ſeen in Suſſex, I never met with in France. The ſmallneſs of the quantity of rank clay in that kingdom, is indeed ſurpriſing.

* Obſervations, Expériences, & Memoires ſur L'Agriculture; par M. Varenne de Fenille, 8vo. 1789. p. 270.

Face of the Country.

The chief diſtinction that marks the faces of different countries, is that of being mountainous or level. In the language, as well as the ideas common in France, mountains are ſpoken of, to which we ſhould give no other appellation than that of hills: the tracks really mountainous in that kingdom are to be found in the S. only. It is four hundred miles S. of Calais before you meet with the mountains of Auvergne, which are united with thoſe of Languedoc, Dauphineé, and Provence, but not with the Pyrenees, for I croſſed the whole S. of France, from the Rhone to the ocean, either by plains or ranges of inconſiderable hills. The mountains of Voge, in Loraine, deſerve, perhaps, that name, but yet are not to be ranked with the ſuperior elevations I have noticed. The inequalities of all the reſt of the kingdom are ſufficient to render the proſpects intereſting, and to give variety to the face of the country, but they deſerve not to be called mountains. Some of the hilly and mountainous tracks of France receive a very conſiderable beauty from the rich and luxuriant verdure of cheſnuts. To thoſe who have not viewed them, it is not eaſy to believe how much they add to the beauty of the Limoſin, the Vivarais, Auvergne, and other diſtricts where they are common.

There is no doubt that the Pyrenees are more ſtriking than all the other mountains of France; I have deſcribed them ſo particularly in the Journal, that I would only obſerve in general here, that their verdure, their woods, their rocks, and their torrents have all the characters of the ſublime and beautiful. I ſaw nothing among the Alps that offered ſuch pleaſing ſcenes as thoſe of the northern parts of Dauphiné; which, however, are leſs varied than thoſe in the neighbourhood of Chambery ſo abounding in landſcapes. According to every account, the courſe of the Iſer is a ſcene of perpetual beauty. The Vivarais, and part of Velay, are moſt romantic.

Of the great rivers of France I prefer the Seine, which is every where an agreeable object. I ſhould ſuppoſe the reputation of the Loire muſt have originated from perſons who either had never ſeen it at all, or only below Angers, where in truth it merits every *eloge*. From that city to Nantes it is, probably, one of the fineſt rivers in the world, the breadth of the ſtream, the iſlands of woods, the boldneſs, culture, and richneſs of the coaſt, all conſpire, with the animation derived from the ſwelling canvaſs of active commerce, to render that line eminently beautiful; but for the reſt of its immenſe courſe, it exhibits a ſtream of ſand; it rolls ſhingle through vales inſtead of water, and is an uglier object than I could poſſibly have conceived, unleſs I had actually ſeen it. The Garonne receives more beauty from the country through which it flows than it confers upon it; the flat banks, fringed with willows, are deſtructive of beauty. I am not equally acquainted with the Rhone; where I ſaw it, from Montelimart to Avignon, and again at Lyons, it does not intereſt me like the Seine. The courſe of the Soane is marked by a noble track of meadows.

In regard to the general beauty of a country, I prefer Limoſin to every other province in France. The banks of the Loire below Angers, and thoſe of the Seine, for two hundred miles from its mouth, ſuperior, undoubtedly, in point of rivers, the capital feature of the country; but the beauty of the Limoſin does not depend on any particular feature, but the reſult of many. Hill, dale, wood, incloſures, ſtreams, lakes, and ſcattered farms, are mingled into a thouſand delicious landſcapes, which ſet off every where this province. Incloſures, which add ſo much ornament to the face of a country,

country, would furniſh obſervations, but I muſt treat of them expreſsly in a more important view.

Of the provinces of the kingdom, not already named, none are of ſuch ſingular features as to demand particular attention. The beauties of Normandy are to be found on the Seine, and thoſe of Guienne on the Garonne. Bretagne, Maine, and Anjou have the appearance of deſerts; and though ſome parts of Touraine are rich and pleaſing, yet moſt of the province is deficient in beauty The fertile territories of Flanders, Artois, and Alſace are diſtinguiſhed by their utility. Picardy is unintereſting. Champagne in general, where I ſaw it, ugly, almoſt as much ſo as Poitou. Loraine, and Franche Compté, and Bourgogne are *ſombre* in the wooded diſtricts, and want chearfulneſs in the open ones. Berry and La Marche may be ranked in the ſame claſs. Sologne merits its epithet, *triſte*. There are parts of the Angoumois that are gay, and conſequently pleaſing.

It may be uſeful to thoſe who ſee no more of France than by once paſſing to Italy, to remark, that if they would view the fineſt parts of the kingdom, they ſhould land at Dieppe and follow the Seine to Paris, then take the great road to Moulins, and thence quit it for Auvergne, and paſs to Viviers, on the Rhone, and ſo by Aix to Italy. By ſuch a variation from the frequented road, the traveller might ſuffer for want of good inns, but would be repaid by the ſight of a much finer and more ſingular country than the common road by Dijon offers, which paſſes, in a great meaſure, through the worſt part of France.

CHAP. III.—*Of the Climate of France.*

OF all the countries of Europe there is not, perhaps one that proves the importance of climate, ſo much as France. In the natural advantages of countries, it is as eſſential as ſoil itſelf; and we can never attain to an idea tolerably correct, of the proſperity and reſources of a country, if we do not know how clearly to aſcertain the natural advantages or diſadvantages of different territories, and to diſcriminate them from the adventitious effects of induſtry and wealth. It ſhould be a principal object with thoſe who travel for the acquiſition of knowledge, to remove the vulgar prejudices which are found in all countries among thoſe who, not having travelled themſelves, have built their information on inſufficient authorities.

France admits a diviſion into three capital parts; 1, of vines; 2, of maize; 3, of olives—which plants will give the three diſtricts of, 1. the northern, where vines are not planted; 2, the central, in which maize is not planted; 3, the ſouth, in which olives, mulberries, vines, and maize are all found. The line of ſeparation between vines and no vines, as I obſerved myſelf, is at Coucy, ten miles to the N. of Soiſſons; at Clermont, in the Beauvoiſois; at Beaumont, in Maine; and Herbignac, near Guerande, in Bretagne. Now there is ſomething very remarkable in this, that if you draw a ſtrait line on the map from Guerande to Coucy, it paſſes very near both Clermont and Beaumont; the former of which is a little to the north of it, and the latter, a little to the ſouth. There are vines at Gaillon and La Roche Guyon, which is a little to the N. of this line; there are alſo ſome near Beauvais, the moſt remote from it which I have ſeen; but even this diſtance is inconſiderable; and the melancholy ſpectacle of the vintage of 1787, which I ſaw there in the midſt of inceſſant rains, is a proof that they ought to have nothing to do with this branch of culture: and at Angers I was informed, that there are no vines, or next to none, between that place and Laval and Mayenne. Having made this remark on the vine climate of France, I wiſhed to know

how far the fact held true in Germany; becauſe if the circumſtance aroſe from a difference of climate, it ought, by parity of reaſon, to be confirmed by vines in that country being found much farther north than in France. This happens preciſely to be the caſe; for I find, by a late author, that vines in Germany are found no farther north than lat. 52 *. The meeting with theſe in that latitude is a ſufficient proof of the fact in queſtion, ſince in France their limit is at 49½. The line, therefore, which I have drawn as the boundary of vines in France, may be continued into Germany, and will probably be found to aſcertain the vine climate in that country, as well as in France. The line of ſeparation between maize and no maize is not leſs ſingular; it is firſt ſeen on the weſtern ſide of the kingdom, in going from the Angoumois and entering Poitou, at Verac, near Ruffec. In croſſing Loraine, I firſt met with it between Nancy and Luneville. It is deſerving of attention, that if a line is drawn from between Nancy and Luneville to Ruffec, that it will run nearly parallel with the other line that forms the ſeparation of vines: but that line acroſs the kingdom, is not formed by maize in ſo unbroken a manner, as the other by vines; for in the central journey, we found it no farther north than Douzenach, in the S. of the Limoſin; a variation, however, that does not affect the general fact. In croſſing from Alſace to Auvergne, I was neareſt to this line at Dijon, where is maize. In croſſing the Bourbonnois to Paris, there is an evident reaſon why this plant ſhould not be found, which is the poverty of the ſoil, and the unimproved huſbandry of all that country, being univerſally under fallow, and rye, which yields only three or four times the ſeed. Maize demands richer land or better management. I ſaw a few pieces ſo far north as near La Fleche, but they were ſo miſerably bad, as evidently to prove that the plant was foreign to that climate. In order to give the reader a clearer idea of this, I have annexed a map, explaining, at one *coup d'œil*, theſe zones or climates, which may be drawn from the productions of France. —The line of olives is pretty nearly in the ſame direction. In travelling ſouth from Lyons, we ſee them firſt at Montelimart; and in going from Beziers to the Pyrenees, I loſt them at Carcaſſonne: now, the line on the map drawn from Montelimart to Carcaſſonne, appears at once to be nearly parallel with thoſe of maize and vines. Hence we may apparently determine, with ſafety, that there is a conſiderable difference between the climate of France in the eaſtern and weſtern parts: that the eaſtern ſide of the kingdom is two and a half degrees of latitude hotter than the weſtern, or if not hotter, more favourable to vegetation. That theſe diviſions are not accidental, but have been the reſult of a great number of experiments, we may conclude from theſe articles of culture in general gradually declining before you quite loſe them. On quitting the Angoumois, and entering Poitou, we find maize dwindling to poor crops, before it ceaſes to be cultivated; and in going from Nancy to Luneville, I noticed it in gardens, and then but in ſmall pieces in the fields, before it became a confirmed culture. I made the ſame remark with reſpect to vines. It is very difficult to account for this fact; it ſeems probable that the climate is better when remote from the ſea, than near it, which is contrary to numerous other facts; and I have remarked, that vines thrive even in the ſea air, and almoſt fully expoſed to it, at the mouth of the river Bayonne, and in Bretagne. A great many repeated obſervations muſt be made, and with more attention than is in the power of a traveller before ſuch a ſubject, apparently very curious, can be thoroughly aſcertained. In making ſuch inquiries as theſe, a general culture is alone to be regarded: vines will grow in England; I have maize now on my own farm—and I have ſeen it at Paris; but this is not the queſtion; for it turns ſolely on

* *De la Monarchie Pruſſienne, par M. le Compte de Mirabeau.* tom. II. p. 158.

the

the climate being ſo well adapted to ſuch articles as to enable the farmer to make them a common culture.

Of the northern climate of France I may remark, that though vines will yield little profit in it for wine, yet there is a ſtrong diſtinction, in reſpect of heat, between it and England, at the ſame time, that much of it is, I believe, to the full as humid as the S. and E. of England. The two circumſtances to be attended to in this inquiry are, the quantity of fruit and the verdure and richneſs of paſtures. In regard to heat, we muſt attend neither to the thermometer nor to the latitude, but to the vegetable productions. I travelled in the fruit ſeaſon through Artois, Picardy, Normandy, Bretagne, Anjou, and Maine, and I found at every town, I might properly ſay at every village, ſuch a plenty of fruit, particularly plumbs, peaches, late cherries, grapes, and melons, as never can be ſeen in England in the very hotteſt ſummers. The markets of all the towns, even in that poor and unimproved province of Bretagne are ſupplied with theſe in a profuſion of which we have no idea. It was with pleaſure I walked through the market at Rennes. If a man were to ſee no other in France, lighting there from an Engliſh balloon, he would in a moment pronounce the climate to be totally different from that of Cornwall, our moſt ſoutherly county, where myrtles will ſtand the winter abroad; and from that of Kerry, where the arbutus is ſo ac-climated, that it ſeems indigenous, though probably brought from Spain by the original inhabitants of the country. Yet in this province of Bretagne I ſaw no maize nor mulberries, and, except in the corner I have mentioned, it has no vineyards Paris is not ſupplied with melons from provinces to the S., but from Harfleur, at the mouth of the Seine.

For the humidity of the climate, I may quote the beautiful verdure of the rich paſtures in Normandy, which are never irrigated. And I was a witneſs to three weeks of ſuch rain at Liancourt, four miles only from Clermont, as I have not known, by many degrees, in England. To the great rains in the N. of France, which render it diſagreeable, may be added the heavy ſnows and the ſevere froſts, which are experienced there to a greater degree than in the S. of England. I am aſſured that the N. of Europe has not known a long and ſharp froſt, which has not been much ſeverer at Paris than at London.

The central diviſion that admits vines without being hot enough for maize, I conſider as one of the fineſt climates in the world. Here are contained the province of Touraine, which, above all others, is moſt admired by the French; the picturesque province of Limoſin; and the mild, healthy, and pleaſant plains of the Bourbonnois; perhaps the moſt eligible countries of all France, of all Europe, as far as ſoil and climate are concerned. Here you are exempt from the extreme humidity which gives verdure to Normandy and England; and yet equally free from the burning heats which turn verdure itſelf into a ruſſet brown in the S.; no ardent rays that oppreſs you with their fervor in ſummer; nor pinching tedious froſts that chill with their ſeverity in winter; a light, pure, elaſtic air, admirable for every conſtitution except conſumptive ones. But at the ſame time that I muſt commend theſe central provinces of France, for every circumſtance of atmoſphere that can render a country agreeable to inhabit, I muſt guard the reader againſt the idea of their being free from great inconveniences; they are certainly ſubject to thoſe in relation to agriculture, which are heavily felt by the farmer. They are ſubject, in common with the olive diſtrict, to violent ſtorms of rain, and what is worſe, of hail. Two years ago, a ſtorm of hail ſwept a track of deſolation in a belt acroſs the whole kingdom, to the damage of ſeveral millions of our money. Such extended ruin is not common, for, if it were, the fineſt kingdoms would be laid waſte; but no year ever paſſes without whole pariſhes ſuffering to a degree of which

we

we have no conception, and on the whole to the amount of no inconſiderable proportion of the whole produce of the kingdom. It appears, from my friend Dr. Symond's paper on the climate of Italy *, that the miſchief of hail is dreadful in that country. I have heard it calculated in the S. of France, that the damage in ſome provinces amounted to one-tenth of the whole produce of them upon an average. A few days before my arrival at Barbeſieux, there had fallen, at the Duke de la Rochefoucauld's ſeat in the Angoumois, and ſome neighbouring pariſhes, a ſhower of hail that did not leave a ſingle grape on the vines, and cut them ſo ſeverely, as to preclude all hope of a crop the year following, and allowed no well-founded expectation of any beneficial produce even the third year. In another place, the geeſe were all killed by the ſame ſtorm; and young colts were ſo wounded that they died afterwards. It is even aſſerted, that men have been known to be killed by hail, when unable to obtain any ſhelter. This ſtorm deſtroyed a copſe of the duke's, that was of two years growth. With ſuch effects, it muſt be obvious to every one, that all ſorts of corn and pulſe muſt be utterly deſtroyed. At Pompinian, between Montauban and Toulouſe, I was witneſs to ſuch a ſhower of rain as never fell in Britain; in that rich vale, the corn, before the ſtorm, made a noble appearance; but imagination can hardly picture a more entire deſtruction than it poured over the whole; the fineſt wheat was not only beaten flat to the ground, but ſtreams of liquid mud covered it in many places, in a manner that made all expectation of recovery hopeleſs. Theſe haſty and violent ſhowers, which are of little conſequence to a traveller, or to the reſidence of a gentleman, are dreadful ſcourges to the farmer, and immenſe drawbacks from the maſs of national products.

A circumſtance of leſs conſequence, but not undeſerving attention, is the froſts which happen in the ſpring. We know in England how injurious theſe are to all the fruits of the earth, and how much they are ſuppoſed to damage even its moſt important product. Towards the end of May 1787, I found all the walnut trees with leaves turned quite black by them, S. of the Loire; and farther to the S., at Brive, we no ſooner ſaw fig-trees, for the firſt time ſcattered about the vineyards, than we remarked them bound about with ſtraw to defend them from the froſts of June. Still more to the S., about Cahors, the walnut trees were black on the 10th of June by froſts, within a fortnight; and we were informed of rye being in ſome years thus killed; and that rarely there is any ſpring month ſecure from theſe unſeaſonable attacks. In the N. E. quarter I found, in 1789, the froſt of the preceding winter had made a ſad havock amongſt the walnut trees, moſt of which were killed in Alſace, and the dead trees made a ſtrange figure in ſummer; they were left in expectation of their ſhooting again, and ſome few did. From Autun in Burgundy, to Bourbon Lancey, the broom was all killed. Spring froſts were alſo complained of as much as on the other ſide of the kingdom. About Dijon, they ſaid that they have them often late, and they damage or deſtroy every thing. And all the countries within reach of the mountains of Voge are affected by the ſnow that falls upon them, which was in 1789, on the 29th of June. This renders the vineyard an uncertain culture. Perhaps it may ariſe from the late froſts in the ſpring, that we meet with ſo few mulberries in France N. of the olive diſtrict. The profit of that tree is very great, as I ſhall explain fully in another place; yet the diſtricts, where they are found in France, are very inconſiderable, when compared with the extent of the whole kingdom. It has been conceived in England, that the mildew is owing to late froſts; when I found myſelf in a region where rye was ſometimes thus killed in June, and where every walnut hung with black, I naturally enquired

* Annals of Agriculture, vol. iii. p. 137.

quired for that diſtemper, and found in ſome places, near Cahors for inſtance, that their wheat was perfectly exempt from that malady in many ſprings, when other plants ſuffered the moſt ſeverely; and we met even with farmers whoſe lands were ſo little ſubject to the diſtemper that they hardly knew it. This ſhould ſeem to ſet aſide the theory of froſts being the cauſe of that malady. As ſpring froſts are as miſchievous in France as they can be with us, ſo alſo are they troubled with autumnal ones earlier than is common with us. On the 20th of September 1787, in going on the S. of the Loire, from Chambord to Orleans, we had ſo ſmart a one, that the vines were hurt by it; and there had been, for ſeveral days, ſo cold a N. E. wind, yet with a bright ſun, that none of us ſtirred abroad without great coats.

The olive-climate contains but a very inconſiderable portion of the kingdom, and of that portion, not in one acre out of fifty is this tree cultivated. Several other plants, beſide the olive, mark this climate. Thus at Montelimart, in Dauphiné, beſides that tree, you meet with, for the firſt time, the pomegranate, the arbor judæ, the paliurus, figs, and the evergreen oak; and with theſe plants, I may add alſo that deteſtable animal the moſquito. In croſſing the mountains of Auvergne, Velay, and Vivarais, I met, between Pradelles and Thuytz, mulberries and flies at the ſame time; by the term flies, I mean thoſe myriads of them, which form the moſt diſagreeable circumſtance of the ſouthern climates. They are the firſt of torments in Spain, Italy, and the olive-diſtrict of France: it is not that they bite, ſting, or hurt, but they buz, teaze, and worry: your mouth, eyes, ears, and noſe, are full of them: they ſwarm on every eatable, fruit, ſugar, milk, every thing is attacked by them in ſuch myriads, that if they are not driven away inceſſantly by a perſon who has nothing elſe to do, to eat a meal is impoſſible. They are, however, caught on prepared paper, and other contrivances, with ſo much eaſe, and in ſuch quantities, that were it not from negligence they could not abound in ſuch incredible quantities. If I farmed in thoſe countries, I think I ſhould manure four or five acres every year with dead flies. Two other articles of culture in this climate, which deſerve to be mentioned, though too inconſiderable to be a national object, are capers in Provence, and oranges at Hieres. The latter plant is ſo tender, that this is ſuppoſed to be the only part of France in which it will thrive in the open air. The whole of Rouſſillon is to the ſouth of this, yet none are to be found there. I went to Hieres to view them, and it was with pain I found them almoſt, without exception, ſo damaged by the froſt, in the winter of 1788, as to be cut down, ſome to the ground, and others to the main ſtem. Vaſt numbers of olives were in the ſame ſituation throughout the whole olive-diſtrict, and abundance of them abſolutely killed. Thus we find, that in the moſt ſoutherly part of France, and even in the moſt ſheltered and ſecure ſituations, ſuch ſevere froſts are known as to deſtroy he art cles of common cultivation.

In the deſcription I took of the climate of Provence, from Monſ. le Preſident, Baron de la Tour d'Aigues, he informed me, that hail, in ſome years, does not break glaſs; but it was mentioned as an extraordinary thing. The only ſeaſons in which is to be expected rain with any degree of certainty, are the equinoxes, when it comes violently for a time. No dependence for a ſingle drop in June, July, or Auguſt, and the quantity always very ſmall; which three months, and not the winter ones, are the pinching ſeaſon for all great cattle. Sometimes not a drop falls for ſix months together *. They have white froſts in March, and ſometimes in April. The great heats

* A writer, who has been criticiſed for this aſſertion, was therefore right:—"Telle eſt la poſition des provinces du midi on l'on reſte ſouvent, ſix mois entiers, ſans voir tomber une ſeule goutte d'eau." *Corps Complet d'Agri.* tom viii. p. 56.

are

are never till the 15th of July, nor after the 15th of September. Harveſt begins June 24th, and ends July 15th—and Michaelmas is the middle of the vintage. In many years no ſnow is to be ſeen, and the froſts not ſevere. The ſpring is the worſt ſeaſon in the year, becauſe the *vent de bize*, the *mæſtrale* of the Italians, is terrible, and ſufficient, in the mountains, to blow a man off his horſe; it is alſo dangerous to the health, from the ſun, at the ſame time, being both high and powerful. But in December, January, and February, the weather is truly charming, with the *bize* very rarely, but not always free from it; for on the 3d of January 1786, there was ſo furious a *mæſtrale*, with ſnow, that flocks were driven four or five leagues from their paſtures; numbers of travellers, ſhepherds, ſheep and aſſes in the Crau periſhed. Five ſhepherds were conducting eight hundred ſheep to the butcheries at Marſeilles, three of whom, and almoſt all the ſheep, periſhed *. To make a reſidence in theſe provinces agreeable, a man ſhould alſo avoid the great ſummer heats. For during the laſt week in July, and ſome days in Auguſt, I experienced ſuch a heat at Carcaſſonne, Mirepoix, Pamiers, &c. as rendered the leaſt exertion, in the middle of the day, oppreſſive; it exceeded any thing I felt in Spain. It was impoſſible to ſupport a room that was light. No comfort but in darkneſs; and even there reſt was impoſſible from myriads of flies †. It is true, ſuch heats are not of long duration; if they were ſo, nobody, able to quit the country, would reſide in it. Theſe climates are diſagreeable in ſpring and ſummer, and delicious in winter only. In the Bourbonnois, Limoſin, and Touraine, there is no *vent de bize*. On the mountains above Tour d'Aigues, are chiefly found lavendula—thymus—ciſtus roſea—ciſtus albidus—ſoralia bitumina—buxus ſemper virens—quercus ilex—pinus montana—roſmarinus officinalis—rhamnus cathartica—geniſtis montis ventoſa—geniſta Hiſpanica—juniperus Phœnicia—ſatureja montana—bromus ſylvatica, &c. In the ſtubbles of all the olive-diſtrict, and in every waſte ſpot are found centaurea calycitropa—centaurea ſolſtitialis,—alſo the eryngium campeſtrum, and the eryngium amethyſtinum:—they have ſown in Provence the datura ſtrimonium, which is now habituated to the country. In the mountains, from Cavalero to Frejus, and alſo in that of Eſtrelles, the lentiſcus—myrtus—arbutus—lavendula—ciſtus—and lauruſtinus.

Upon a general view of the climate of France, and upon comparing it with that of countries, not ſo much favoured apparently by nature, I may remark, that the principal ſuperiority of it ariſes from adapting ſo large a portion of the kingdom to the culture of the vine; yet this noble plant is moſt unaccountably decried by abundance of writers, and eſpecially by French ones, though the farmer is enabled to draw as extenſive a profit from poor and otherwiſe barren, and even almoſt perpendicular rocks, as from the richeſt vales. Hence immenſe tracks of land may be ranked in France among the moſt valuable, which in our climate would be abſolutely waſte, or at leaſt applied to no better uſe than warrens or ſheep walks. This is the great ſuperiority which climate gives to that kingdom over England:—of its nature and extent, I ſhall treat fully under another head.

The object of the next importance is peculiar to the olive and maize diſtricts, and conſiſts in the power of having, from the nature of the climate, two crops a-year on

* *Traité de l'Olivier, par M. Couture*, ii. tom. 8vo. Aix, 1786. tom. i. p. 79.

† I have been much ſurpriſed, that the late learned Mr. Harmer ſhould think it odd to find, by writers who treated of ſouthern climates, that driving away flies was an object of importance. Had he been with me in Spain and in Languedoc, in July and Auguſt, he would have been very far from thinking there was any thing odd in it. *Obſerv. on divers Paſſages of Scripture*, vol. iv. p. 159.

vaſt tracks of their arable land: an early harveſt, and the command of plants, which will not thrive equally well in more northern climates, give them this invaluable advantage. We ſee wheat ſtubbles left in England, from the middle of Auguſt, to yield a few ſhillings by ſheep, which, in a hotter climate, would afford a ſecond crop, yielding food foreman, ſuch as millet, the fifty day maize (the cinquantina of the Italians &c.; or proye a better ſeaſon for turnips, cabbages, &c. than the common ſeaſon for them here. In Dauphiné, I ſaw buck-wheat in full bloſſom the 23d of Auguſt, that had been ſown after wheat. I do no more than name it here, ſince, in another place, it muſt be examined more particularly. Mulberries might in France be an object of far greater importance than they are at preſent, and yet the ſpring froſts are fatal impediments to the culture: that this plant muſt be conſidered for all important purpoſes, as adapted only to ſouthern climates, appears from this, that Tours is the only place I know in France, north of the maize climate, where they are cultivated for ſilk with any ſucceſs; conſiderable experiments have been made (as I ſhall ſhew in the proper place) for introducing them into Normandy and elſewhere, but with no ſucceſs; and the force of this obſervation is doubled, by the following fact—that they ſucceed much better in the olive climate than in any part of the kingdom. But that they might be greatly extended, cannot for a moment be doubted. In going ſouth, we did not meet with them till we came to Cauſade, near Montauban. In returning north, we ſaw them at Auch only —A few at Aguillon, planted by the Duke—the promenade at Poitiers planted by the intendant—and another at Verteul, by the Duke d'Anville; all which are experiments that have not been copied, except at Auch. But at Tours there is a ſmall diſtrict of them. In another direction, they are not met with after Moulins, and there very few. Maize is an object of much greater conſequence than mulberries; when I give the courſes of the French crops, it will be found that the only good huſbandry in the kingdom (ſome ſmall and very rich diſtricts excepted) ariſes from the poſſeſſion and management of this plant. Where there is no maize, there are fallows; and where there are fallows, the people ſtarve for want. For the inhabitants of a country to live upon that plant, which is the preparation for wheat, and at the ſame time to keep their cattle fat upon the leaves of it, is to poſſeſs a treaſure, for which they are indebted to their climate. The quantity of all the common ſorts of fruits, which, through the greater part of France, is ſuch as to form a conſiderable object in the ſubſiſtence of the great maſs of people, is a point of more conſequence than appears at firſt ſight. To balance theſe favourable circumſtances, other countries, not ſo happily ſituated (eſpecially England) have advantages of an oppoſite nature, which are very material in the practice of their agriculture: that humidity of atmoſphere, which the French provinces north of vines enjoy—which England has in a greater degree, and Ireland ſtill more, and which is better marked by the hygrometer than by the rain gage, is of ſingular importance in the maintenance of cattle by paſturage, and in adapting the courſes of crops to their ſupport. Artificial graſſes, turnips, cabbages, potatoes, &c. thrive beſt in a humid climate. It would take up too much room here fully to explain this; to mention it will be ſufficient for thoſe who have reflected on ſimilar ſubjects. From a due attention to all the various circumſtances that affect this queſtion, which, relatively to agriculture, is the beſt climate, that of France, or that of England?—I have no heſitation in giving the preference to France. I have often heard, in converſation, the contrary aſſerted, and with ſome appearance of reaſon—but I believe the opinion has ariſen more from conſidering the actual ſtate of huſbandry in the two countries, than the diſ-

inct properties of the two climates. We make a very good uſe of our's; but the French are, in this reſpect, in their infancy, through more than half the kingdom *.

CHAP. V.—*Of the Population of France.*

AS the ſubject of population is beſt treated by an inquiry into the induſtry, agriculture, diviſion of landed property, &c. I ſhall at preſent merely lay before the reader ſome facts collected with care in France, that afford uſeful data for political arithmeticians. Monſ. l'Abbé Expilly, in his *Dictionnaire de la France*, makes the number 21,000,000. And the Marquis de Mirabeau † mentions an enumeration of the kingdom in 1755; total 18,107,000. In Normandy 1,665,200, and in Bretagne 847,500. Monſ. de Buffon, in his *Hiſtoire Naturelle*, aſſigns for the population of the kingdom 22,672,077. Monſ. Meſſance, in his *Recherches ſur la Population*, 4to. 1766, gives the details from which he draws the concluſion, that in many towns in Auvergne the births are to the number of inhabitants as 1 to 24 $\frac{1}{2}$ $\frac{1}{40}$ $\frac{1}{100}$; the marriages per annum 1 to 114 inhabitants; and families, one with another, compoſed of 5 $\frac{1}{8}$ $\frac{1}{24}$, or 24 families contain 124 inhabitants. In various towns in the Lyonnois, births are to the inhabitants as 1 to 23 $\frac{3}{4}$; the marriages per annum 1 to 111 perſons; and families compoſed 4 $\frac{3}{4}$ $\frac{1}{30}$ ‡; 80 families contain 381 inhabitants. In various towns in Normandy the births to the inhabitants as 1 to 27 $\frac{1}{2}$ $\frac{1}{29}$; marriages per annum 1 to 114 perſons; families are compoſed of 3 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{26}$; 20 repreſent 76 inhabitants. In the city of Lyons families are compoſed of 5 $\frac{1}{4}$ $\frac{1}{60}$; 60 repreſent 316 inhabitants; and there are a few above 24 perſons per houſe in that city. In the city of Rouen families are compoſed of 6 $\frac{1}{10}$ perſons; and there are 6 $\frac{1}{3}$ $\frac{1}{11}$ perſons per houſe. At Lyons 1 in 35 $\frac{1}{2}$ dies annually; at Rouen 1 in 27 $\frac{1}{2}$. Mean life in ſome pariſhes in the generality of Lyons 25 years; ditto in the generality of Rouen 25 years 10 months. At Paris 1 in 30 dies annually: a family conſiſts of 8, and each houſe contains 24 $\frac{1}{2}$ perſons. By comparing the number of births in every month at Paris, for forty years, he found that thoſe in which conception flouriſhed moſt were May, June, July, and Auguſt, and that the mortality for forty years was as follows:

Months.	Deaths.	Months.	Deaths.	Months.	Deaths.
March, -	77,803	February,	66,789	October,	54,897
April, -	76,815	December,	60,926	September,	54,339
May, -	72,198	June, -	58,272	November,	54,029
January,	69,166	July, -	57,339	Auguſt,	52,479

It ſhould appear from this table, that the influence of the ſun is as important to human health as it is to vegetation. What pity that we have not ſimilar tables of cities in all the different latitudes and circumſtances of the globe.

* The minute details concerning agriculture are omitted, as, however valuable in themſelves, they little accord with the nature of this publication.

† *L'Ami des Hommes*. 1760. 5th edit. tom. iv. p. 184.

‡ The committee of *Mendicité* aſſerts, that each family in France conſiſts of five, as each has three children. *Cinquieme Rapport*, p. 34.

At Clermont Ferrand 1 in 38 dies annually.—At Carcaſſonne 1 in 22½.—At Valence 1 in 24½—At Vitry le François 1 in 23½.—At Elbœuf 1 in 29½.—At Loviers 1 in 31½.—At Honfleur 1 in 24.—At Vernon 1 in 25.—At Giſors 1 in 29.—At Pont-au-de-Mer 1 in 33.—At Neufchatel 1 in 24½.—At Pont l'Eveque 1 in 26.—At le Havre 1 in 35. Upon a compariſon in ſeven principal provinces of the kingdom, population in ſixty years has augmented in the proportion of 211 to 196, or a thirteenth. General deduction;—that the number of people in France in 1764 was 23,909,400. Monſ. Moheau * gives to the beſt peopled provinces 1700 inhabitants per ſquare league; and to the worſt 500; the medium 872, at which rate he makes the total 23,500,000, and an increaſe of a ninth ſince 1688. The iſle of Oleron is peopled at the rate of 2886 per league, and that of Ré 4205. He alſo calculates that 1 in 36 dies, and 1 in 26 is born every year. Monſ. Necker, in his work *de l'Adminiſtration des Finances de la France*, has the following particulars, which it is alſo neceſſary to have in our attention:—Births in the whole kingdom per annum, on an average, of 1776, 77, 78, 79, and 80, were 963,207:—which, multiplied by 25¾, the proportion he fixes on, gives 24,802,580 inhabitants in France. He notices the groſs error of the *œconomiſtes*, in eſtimating the population of the kingdom at 15 or 16 millions.—A later authority, but given in whole numbers, and therefore not accurate, ſtates the population of the kingdom at 25,500,000, of which the clergy are ſuppoſed to be 80,000, the nobility 110,000, the proteſtants 3,000,000, and Jews 30,000 †: the committee of impoſts aſſert, that to multiply the births in the cities of France by 30, will give their population with ſufficient truth; but for the country not ſo high ‡. The rule of 30 would make the population 28,896,210. But much later than all theſe authorities, the National Aſſembly has ordered ſuch enquiries to be made into the population of the kingdom, as have produced a much greater degree of accuracy than was ever approached before: this has been done by the returns of taxes, in which all perſons, not liable to be charged are entered in what we ſhould call the duplicates; and as the directions for making theſe liſts are poſitive and explicit, and no advantage whatever reſults to the people by concealing their numbers, but on the contrary, in many inſtances, they are favoured in taxation, by reaſon of the number of their children, we may ſurely conclude, that theſe returns are the ſafeſt guides to direct our calculations. Here follows the detail:

* *Recher. ſur la Population de la France*, 8vo. 1778.
† *Bibliotheque de l'Homme Publique*, par Meſſ. de Condorcet, Peyſonnel, & le Chapelier, tom iii.
‡ *Rapport de Comité d' Impoſ. ſur les Taxes*, p. 27.

Etat

Etat générale de la Population du Royaume de la France.

No.	*Noms des Départemens.*	*Population des villes & bourgs.*	*Pop. des villages & des Campagne.*	*Total de la population.*
1,	L'Ain, - -	42,300	251,566	293,866
2,	L'Aine, - -	86,800	305,253	392,053
3,	L'Allier, -	42,800	203,280	246,080
4,	Les Hautes Alpes,	29,300	151,833	181,333
5,	Des Baſſes Alpes,	38,060	180,606	218,666
6,	L'Ardeche, -	24,600	185,533	210,133
7,	Les Ardennes, -	62,100	113,260	175,360
8,	L'Arieges, -	31,400	139,266	170,666
9,	L'Aube, -	40,100	157,255	197,355
10,	L'Aude, -	48,400	203,120	251,520
11,	L'Aveyron -	46,500	250,135	296,635
12,	Les bouches du Rhône,	163,200	158,933	322,133
13,	Le Calvados, -	105,350	329,850	435,200
14,	Le Cantal, -	39,950	237,385	277,335
15,	La Charente, -	44,100	224,060	268,160
16,	La Charente Inférieure, -	89,120	279,306	368,426
17,	Le Cher, -	47,900	228,366	576,266
18,	La Correzé, -	52,750	221,692	254,442
19,	La Corſe, -			132,266
20,	La Côté d'Or, -	59,350	367,983	427,333
21,	Les Côtés du Nord,	27,500	441,166	468,666
22,	La Creuſe, -	22,800	244,293	267,093
23,	La Dordogne, -	51,900	353,433	405,333
24,	Le Doubs, -	36,500	187,500	224,000
25,	La Drome, -	29,900	194,100	224,000
26,	L'Eure, -	76,600	323,400	400,000
27,	L'Eure et Loire, -	44,350	186,050	230,400
28,	Le Finiſterre, -	63,000	417,000	480,000
29,	Du Gard, -	100,700	124,900	225,600
30,	De la Haute Garonne,	71,600	182,053	253,653
31,	Du Gers, -	54,000	214,200	268,800
32,	La Gironde, -	200,000	408,000	608,000
33,	D'Hérault, -	108,700	155,833	264,533
34,	L'Ille et Villaine,	50,800	439,866	490,666
35,	L'Indre, -	50,650	219,750	270,400
36,	L'Indre et Loire,	82,500	267,366	549,866
37,	L'Iſere, -	33,700	269,873	303,573
38,	Du Jura, -	30,900	218,700	349,600
39,	Des Landes, -	36,500	209,700	246,200
40,	Loire et Cher, -	51,400	207,800	259,200
41,	La Haute Loire,	41,100	172,233	213,333
42,	La Loire Inférieure,	108,100	399,633	507,733
	Carry forward,	2,447,880	10,019,531	12,599,677

No.	*Noms des Departemens.*	*Population des villes & bourgs.*	*Pop. des villages & des Campagne,*	*Total de la population.*
	Brought forward,	2,447,880	10,019,531	12,599,677
43,	Du l'Oriet, -	84,600	185,266	269,866
44,	Du Lot, -	55,100	212,900	268,000
45,	Du Lot & Garonne,	39,200	262,666	308,666
46,	La Lozerre, -	19,400	176,226	195,626
47,	De Maine & Loire,	94,000	200,666	294,666
48,	La Manche, -	88,100	242,566	330,666
49,	La Marne, -	76,200	206,466	282,666
50,	La Haute Marne,	36,100	177,293	213,393
51,	La Mayenne, -	73,600	248,533	322,133
52,	La Meurte, -	65,900	314,336	380,266
53,	La Meuſe, -	58,100	194,166	252,266
54,	Le Morbihan, -	42,400	448,266	490,666
55,	La Mozelle, -	67,000	223,133	290,133
56,	La Nyevre, -	34,500	218,100	252,600
57,	Le Nord, -	168,800	399,733	568,533
58,	L'Oiſe, -	53,900	266,100	320,000
59,	L'Orne, -	57,800	328,333	386,133
60,	Du Paris, -	556,800	168,533	725,333
61,	Le Pas de Calais, -	79,600	507,066	586,666
62,	Le Puy de Dome,	82,550	322,783	405,333
63,	Les Hautes Pyrennées,	35,000	122,866	157,866
64,	Les Baſſes Pyrennées,	55,490	231,465	286,955
65,	Les Pyrennées Orientales, -	31,100	131,033	162,133
66,	Le Haut Rhin, -	29,500	276,633	306,133
67,	Le Bas Rhin, -	90,500	272,366	362,666
68,	Le Rhone & Loire,	215,000	460,440	675,840
69,	La Haute Saonne, -	18,700	231,966	250,666
70,	Saonne & Loire, -	60,100	342,033	402,133
71,	La Sarte, -	66,500	296,166	362,666
72,	Seine & Oiſe, -	105,900	214,100	320,000
73,	Le Seine Inférievre,	184,550	261,316	445,866
74,	La Seine & Marne,	52,300	293,300	345,600
75,	Des deux Sevres,	56,300	157,033	213,335
76,	La Somme, -	91,600	294,533	386,133
77,	Le Tarn, -	51,900	171,500	230,400
78,	Le Var, -	49,900	213,566	263,466
79,	La Vendée, -	34,900	191,333	226,133
80,	La Vienne, -	48,700	232,900	281,600
81,	La Haute Vienne,	41,300	140,033	181,333
82,	Les Voſges, -	28,200	291,800	320,000
83,	L'Yonne, -	72,900	366,566	439,466
	Total	5,709,270	20,521,538	26,363,074

Eſtimating the acres at 131,722,295, and the people as here detailed, we find that it makes, within a ſmall fraction, five acres a head. That proportion would be 131,815,270 acres. If England were equally well peopled, there ſhould be upon 46,915,933 acres, rather more than 9,000,000 ſouls. And for our two iſlands, to equal France in this reſpect, there ſhould be in them 19,867,117 ſouls; inſtead of which there are not more than 15,000,000.

An obſervation, rather curious, may be made on this detail; it appears, that leſs than one-fourth of the people inhabit towns; a very remarkable circumſtance, becauſe it is commonly obſerved, and doubtleſs founded on certain facts, that in flouriſhing countries the half of a nation is found in towns. Many writers, I believe, have looked upon this as the proportion in England: in Holland, and in Lombardy, the richeſt countries in Europe, the ſame probably exiſts. I am much inclined to connect this ſingular fact, relating to France, with that want of effect and ſucceſs in its agriculture, which I have remarked in almoſt every part of the kingdom; reſulting alſo from the extreme diviſion of the ſoil into little properties. It appears likewiſe, from this detail, that their towns

are not conſiderable enough to give that animation and vigour to the induſtry of the country, which is beſt encouraged by the activity of the demand which cities afford for the products of agriculture. A more certain and unequivocal proof of the juſtice of my remarks, on the too great and miſchievous diviſion of landed property and farms in that kingdom could hardly have ariſen: and it yields the cleareſt conviction, that the progreſs of national improvement has been upon the whole but ſmall in France. The manufactures and commerce of the kingdom muſt have made a leſs advance than one would have conceived poſſible, not to have effected a proportion far different from this of a fifth. A really active induſtry, proportioned to the real reſources of the kingdom, ſhould long ago have *purged the country* (to uſe an expreſſion of Sir James Stuart's) of thoſe ſuperfluous mouths,—I do not ſay hands; for they eat more than they work; and it is their want of employment that ought to drive them into towns. Another obſervation is ſuggeſted by this curious table of population: I have repeatedly, in the diary of my journey, remarked, that the near approach to Paris is a deſert compared to that of London; that the difference is infinitely greater than the difference of their population; and that the want of traffic, on the high roads, is found every where in the kingdom as well as at Paris. Now it deſerves notice, that the great reſort, which is every where obſervable on the highways of England, flows from the number, ſize, and wealth of our towns, much more than from any other circumſtance. It is not the country, but towns that give the rapid circulation from one part of a kingdom to the other; and though, at firſt ſight, France may be thought to have the advantage in this reſpect, yet a nearer view of the ſubject will allow of no ſuch concluſion. In the following liſt, the Engliſh column has ſurely the advantage:

Engliſh.	French.	Engliſh.	French.
London,	Paris,	Mancheſter,	Rouen,
Dublin,	Lyons,	Birmingham,	Lille,
Edinburgh,	Bourdeaux,	Norwich,	Niſmes,
Liverpool,	Marſeilles,	Cork,	St. Malo,
Briſtol,	Nantes,	Glaſgow,	Bayonne,
Newcaſtle,	Havre,	Bath,	Verſailles.
Hull,	Rochelle,		

The vaſt ſuperiority of London and Dublin, to Paris and Lyons, renders the whole compariſon ridiculous. I believe, London, without exaggeration, to be alone equal to Paris, Lyons, Bourdeaux, and Marſeilles, as appears by the liſts of population, and by the wealth and trade of all. But if we reflect, that the towns of England, &c. are portions of a population of fifteen millions only, and thoſe of France parts of twenty-ſix millions, the compariſon ſhews at once the vaſtly greater activity there muſt be in one country than in the other *.

Of all the ſubjects of political œconomy, I know not one that has given riſe to ſuch a cloud of errors as this of population. It ſeems, for ſome centuries, to have been conſidered as the only ſure teſt of national proſperity. The politicians of thoſe times, and

* What can be thought of thoſe marvellous politicians, the nobility of Dourdon, who call for entrées at the gates of the cities, not as a good mode of taxation, but to reſtrain the too great populouſneſs of cities, "which never takes place but by the depopulation of the country." Cahier, p. 20. The Count de Mirabeau, in his Monarchie Pruſſienne, recurs often to the ſame idea. He was groſsly erroneous, when he ſtated the ſubjects of the King of France as thrice more numerous than thoſe of England, if he meant by England, as we are to ſuppoſe, Scotland and Ireland alſo. tom. i. p. 402.

the

the majority of them in the preſent, have been of opinion, that, to enumerate the people, was the only ſtep neceſſary to be taken, in order to aſcertain the degree in which a country was flouriſhing. Two-and-twenty years ago, in my "Tour through the North of England, 1769," I entered my caveat againſt ſuch a doctrine, and preſumed to aſſert, "that no nation is rich or powerful by means of mere numbers of people; it is the induſtrious alone that conſtitute a kingdom's ſtrength; that aſſertion I repeated in my "Political Arithmetic, 1774;" and in the ſecond part, 1779, under other combinations. About the ſame time a genius of a ſuperior caſt (Sir James Stuart,) very much exceeded my weak efforts, and, with a maſterly hand, explained the principles of population. Long ſince that period, other writers have ariſen who have viewed the ſubject in its right light; and of theſe none have equalled Monſ. Herenſchwandt, who, in his "*Economie Politique Moderne*, 1786;" and his "*Diſcours ſur la Diviſion des Terres* *, 1788," has almoſt exhauſted the ſubject. I ſhall not, however, omit to name the report of the committee of *Mendicité* in the National Aſſembly. The following paſſage does the higheſt honour to their political diſcernment:—"*C'eſt ainſi que malgré les aſſertions, ſans ceſſe répetées depuis vingt ans, de tous les écrivains politiques qui placent la proſperité d'un empire dans ſa plus grande population, une population exceſſive ſans un grand travail & ſans des productions abondantes, ſeroit au contraire une dévorante ſurcharge pour un etat; car, il faudroit alors que cette exceſſive population partageat les benefices de celle qui, ſans elle, eût trouvé une ſubſiſtence ſuffiſante; il faudroit que la même ſomme de travail fut abandonnée à une plus grande quantité de bras; il faudroit enfin neceſſairement que le prix de ce travail baiſſat par la plus grande concurrence des travailleurs, d'on reſulteroit une indigence complette pour ceux qui ne trouveroient pas de travail, & une ſubſiſtance incomplette pour ceux-mêmes aux quels il ne ſeroit pas refuſé* †"—France itſelf affords an irrefragable proof of the truth of theſe ſentiments; for I am clearly of opinion, from the obſervations I made in every province of the kingdom, that her population is ſo much beyond the proportion of her induſtry and labour, that ſhe would be much more powerful, and infinitely more flouriſhing, if ſhe had five or ſix millions leſs of inhabitants. From her too great population, ſhe preſents, in every quarter, ſuch ſpectacles of wretchedneſs, as are abſolutely inconſiſtent with that degree of national felicity, which ſhe was capable of attaining even under her old government. A traveller much leſs attentive than I was to objects of this kind, muſt ſee at every turn moſt unequivocal ſigns of diſtreſs. That theſe ſhould exiſt, no one can wonder who conſiders the price of labour, and of proviſions, and the miſery into which a ſmall riſe in the price of wheat throws the lower claſſes; a miſery, that is ſure to increaſe itſelf by the alarm it excites, leſt ſubſiſtence ſhould be wanted. The cauſes of this great population were certainly not to be found in the benignity of the old government yielding a due protection to the lower claſſes, for, on the contrary, it abandoned them to the mercy of the privileged orders. It is fair, however, to obſerve, that there was nothing in the principles of the old government, ſo directly inimical to population, as to prevent its increaſe. Many croaking writers in France have repeatedly announced the depopulation of that kingdom, with pretty much the ſame truth and ingenuity that have been exerciſed on the ſame ſubject in England. Monſ. Necker, in a very ſenſible paſſage, gives a deciſive anſwer to them, which is at the ſame time thoroughly applicable to the ſtate of England, as well as to that of France ‡. Nor can the great population of France be attributed to the climate, for the tables of births

* See particularly, p. 48, 51. &c.

† *Plan de Travail du Comité pour l'extinction de la Mendicité preſenté par M. de Liancourt.* 8vo. p. 6. 1790.

‡ De l'Adminiſt. des Finances. Ouvres. 4to. Londres. p. 320.

and burials offer nothing more favourable in that kingdom, than in our own. And a much worſe climate in Holland and Flanders, and in ſome parts of Germany and Italy, is attended with a ſtill greater populouſneſs *. Nor is it to be imputed to an extraordinary proſperity of manufactures, for our own are much more conſiderable, in proportion to the number of people in the two countries.

This great populouſneſs of France I attribute very much to the diviſion of the lands into ſmall properties, which takes place in that country to a degree of which we have in England but little conception. Whatever promiſes the appearance even of ſubſiſtence, induces men to marry. The inheritance of ten or twelve acres to be divided amongſt the children of the proprietor, will be looked to with the views of a permanent ſettlement, and either occaſions a marriage, the infants of which die young for want of ſufficient nouriſhment †; or keeps children at home, diſtreſſing their relations, long after the time that they ſhould have emigrated to towns. In diſtricts that contain immenſe quantities of waſte land of a certain degree of fertility, as in the roots of the Pyrenees, belonging to communities ready to ſell them, œconomy and induſtry, animated with the views of ſettling and marrying, flouriſh greatly: in ſuch neighbourhoods ſomething like an American increaſe takes place; and, if the land be cheap, little diſtreſs is found. But as procreation goes on rapidly, under ſuch circumſtances, the leaſt check to ſubſiſtence is attended with great miſery; as waſtes becoming dearer, or the beſt portions being ſold, or difficulties ariſing in the acquiſition; all which caſes I met with in thoſe mountains. The moment any impediment happens, the diſtreſs of ſuch people will be proportioned to the activity and vigour which had animated population. It is obvious, that in the caſes here referred to, no diſtreſs occurs, if the manufactures and commerce of the diſtrict are ſo flouriſhing as to demand all this ſuperfluity of rural population as faſt as it ariſes; for that is preciſely the balance of employments which prevails in a well regulated ſociety; the country breeding people to ſupply the demand and conſumption of towns and manufactures. Population will, in every ſtate, increaſe perhaps too faſt for this demand. England is in this reſpect, from the unrivalled proſperity of her manufactures, in a better ſituation than any other country in Europe; but even in England population is ſometimes too active, as we ſee clearly by the dangerous increaſe of poor's rates in country villages; and her manufactures being employed very much for ſupplying foreign conſumption, they are often expoſed to bad times; to a ſlack demand, which turns thouſands out of employment, and ſends them to their pariſhes for ſupport. Since the concluſion of the American war, however, nothing of this kind has happened; and the ſeven years which have elapſed ſince that period, may be named as the moſt deciſively proſperous which England ever knew. It has been ſaid to me in France, would you leave uncultivated lands waſte, rather than let them be cultivated in ſmall portions, through a fear of population?—I certainly would not: I would on the contrary, encourage their culture; but I would prohibit the diviſion of ſmall farms, which is as miſchievous to cultivation, as it is ſure to be diſtreſſing to the people. The indiſcriminate praiſe of a great ſub-diviſion, which has found its way unhappily into the National Aſſembly, muſt have ariſen from a want of examination into facts: go to diſtricts where the properties are minutely divided, and you will find (at leaſt I have done it univerſally) great diſtreſs, and even miſery, and probably very bad agriculture. Go to others, where ſuch ſub-diviſion

* A very ingenious Italian writer ſtates the people of France at 1290 ſouls per league; and in Italy at 1335. *Fabbroni Reflexions ſur l'Agric.* p. 243.

† Monſ. Necker, in the ſame ſection as that quoted above, remarks this to be the caſe in France; and juſtly obſerves, that the population of ſuch a country being compoſed of too great a proportion of infants, a million of people implies neither the force nor labour of a million in countries otherwiſe conſtituted.

has not taken place, and you will find a better cultivation, and infinitely leſs miſery; and if you would ſee a diſtrict, with as little diſtreſs in it as is conſiſtent with the political ſyſtem of the old government of France, you muſt aſſuredly go where there are no little properties at all. You muſt viſit the great farms in Beauce, Picardy, part of Normandy, and Artois, and there you will find no more population than what is regularly employed and regularly paid; and if in ſuch diſtricts you ſhould, contrary to this rule, meet with much diſtreſs, it is twenty to one but that it is in a pariſh which has ſome commons that tempt the poor to have cattle—to have property—and, in conſequence, miſery. When you are engaged in this political tour, finiſh it by ſeeing England, and I will ſhew you a ſet of peaſants well cloathed, well nouriſhed, tolerably drunken from ſuperfluity, well lodged, and at their eaſe; and yet amongſt them, not one in a thouſand has either land or cattle. When you have viewed all this, go back to your tribune, and preach, if you pleaſe, in favour of a minute diviſion of landed property. There are two other groſs errors, in relation to this ſubject, that ſhould be mentioned; theſe are, the encouragements that are ſometimes given to marriage, and the idea of the importance of attracting foreigners. Neither of theſe is at all admiſſible on juſt principles, in ſuch a country as France. The predominant evil of the kingdom, is the having ſo great a population, that ſhe can neither employ nor feed it: why then encourage marriage? would you breed more people, becauſe you have more already than you know what to do with? You have ſo great a competition for food, that your people are ſtarving or in miſery; and you would encourage the production of more to encourage that competition! It may almoſt be queſtioned, whether the contrary policy ought not to be embraced? whether difficulties ſhould not be laid on the marriage of thoſe who cannot make it appear that they have a proſpect of maintaining the children that ſhall be the fruit of it? But why encourage marriages which are ſure to take place in all ſituations in which they ought to take place?—There is no inſtance to be found of plenty of regular employment being firſt eſtabliſhed, where marriages have not followed in a proportionate degree. The policy, therefore, at beſt is uſeleſs, and may be pernicious. Nor is the attraction of foreigners deſirable in ſuch a kingdom as France. It does not ſeem reaſonable to have a peaſantry half ſtarved for want of employment, ariſing from a too great populouſneſs; and yet, at the ſame time, to import foreigners, to increaſe the competition for employment and bread, which are inſufficient for the preſent population of the kingdom. This muſt be the effect, if the new comers be induſtrious; if they belong to the higher claſſes, their emigration from home muſt be very inſignificant, and by no means an object of true policy; they muſt leave their own country, not in conſequence of encouragement given in another, but from ſome ſtrokes of ill policy at home. Such inſtances are indeed out of the common courſe of events, like the perſecutions of a Duke d'Alva, or the revocation of the edict of Nantes. It is the duty of every country, to open its arms, through mere humanity, to receive ſuch fugitives; and the advantages derived from receiving them may be very conſiderable, as was the caſe with England. But this is not the kind of emigrations to which I would allude, but rather to the eſtabliſhment of ſuch colonies as the King of Spain's, in the Sierre Morena. German beggars were imported, at an immenſe expence, and ſupplied with every thing neceſſary to eſtabliſh little farms in thoſe deſerts; whilſt at the ſame time, every town in Spain ſwarmed with multitudes of idle and poor vagrants, who owed their ſupport to biſhops and convents. Suppreſs gradually this blind and indiſcriminate charity, the parent of infinite abuſe and miſery, and at the ſame time give ſimilar employments to your own poor; by means of this policy, you will want no foreigners; and you may ſettle ten Spaniſh families for the expence of one German. It is very common to hear of the want of population in Spain, and ſome

other countries; but ſuch ideas are uſually the reſult of ignorance, ſince all ill-governed countries are commonly too populous. Spain, from the happineſs of its climate, is greatly ſo, notwithſtanding the apparent ſcarcity of inhabitants; for, as it has been ſhewn above, that country which has more people than it can maintain by induſtry, who muſt either ſtarve, or remain a dead weight on the charity of others, is manifeſtly too populous *; and Spain is perhaps the beſt peopled country in Europe, in proportion to its induſtry. When the great evil is having more people than there is wiſdom, in the political inſtitutes of a country to govern, the remedy is not by attracting foreigners —*it lies much nearer home.*

CONSUMPTION.

Twenty Years Conſumption at Paris, of Oxen, Calves, Sheep, and Hogs, after entered in the Books of the Entrées.

Years.	Oxen.	Calves.	Sheep.	Hogs.	Years.	Oxen.	Calves.	Sheep.	Hogs.
1767,	68,763	106,579	358,577	37,899	1777,	71,755	104,600	343,300	35,823
68,	69,985	112,949	344,320	32,299	78,	73,600	107,292	328,868	36,204
69,	66,586	111,608	333,916	36,186	79,	73,468	99,957	324,028	38,211
70,	66,818	110,578	335,013	36,712	80,	71,488	104,825	308,043	41,419
71,	65,360	107,598	314,124	30,753	81,	70,484	99,53[illegible]	317,681	41,205
72,	63,390	101,791	293,946	28,610	82,	72,107	100,706	16,563	44,772
73,	65,324	99,749	309,137	29,391	83,	71,042	98,478	321,627	39,177
74,	68,025	103,247	309,573	30,032	84,	72,984	100,112	327,034	39,621
75,	68,306	109,235	309,662	32,722	85,	73,846	94,727	332,628	28,697
76,	71,208	102,291	328,505	37,740	86,	73,088	89,575	328,699	39,577

Average.—Oxen, 69,883. Calves, 103,271. Sheep, 323,762. Hogs, 36,332.

Theſe are the quantities for which duties are paid; but it is calculated by the officers of the cuſtoms, that what enters contraband, and for which nothing is paid, amounts to one-ſixth of the whole †.

The conſumption of flour is 1500 ſacks per diem, each weighing 320lb. requiring nine ſeptiers of corn to yield four of thoſe ſacks, or 3375 ſeptiers per diem. This is, per annum, 1,231,875 ſeptiers; the French political arithmeticians agree in calculating the conſumption of their people per head, at three ſeptiers for the whole kingdom on an average; but this will not lead us to the population of the capital, as the immenſe conſumption of meat in it muſt evidently reduce conſiderably that proportion. It may probably be eſtimated at two ſeptiers, which will make the population 615,037 ſouls. Monſ. Necker's account of the population was 660,000. The enumeration in 1790 made the numbers no more than 550,800; and there are abundant reaſons for believing the aſſertion, that this capital was diminiſhed by the revolution in that proportion at leaſt. This point is, however, aſcertained by the conſumption, which is now 1350 ſacks a day, or reduced one-tenth, which, at two ſeptiers of corn, implies a population of

* An Italian author, with whom I had the pleaſure of converſing at Turin, juſtly obſerves, "Quanto la popolazione proporzionata ai prodotti della natura e dell' arte è vantaggioſa ad una nazione, altrettanto è nociva una popolazione ſoverchia." *L'Abbate Vaſco, Riſpoſta al queſito propoſto da lia Reale Accad. delle Scienze*, &c. 8vo. 1788. p. 85.

† To ſome it may appear ſtrange, how ſuch a commodity as live oxen, can be ſmuggled in great quantities; but the means of doing it are numerous; one was diſcovered, and many more of the ſame ſort are ſuppoſed to exiſt undiſcovered: a ſubterraneous paſſage was pierced under the wall, going from a court-yard without the wall, to a butcher's yard within; and whole droves of oxen, &c. entered by it in the night for a long time, before it was known. The officers of the barriers are convinced, that on an average of commodities, one-ſixth is ſmuggled.

554,344;

554,344; and as this comes within 2000 of the actual enumeration, it proves two ſeptiers a head is an accurate eſtimate; and though it does not perfectly agree with Monſ. Necker's account of the former population of Paris, yet it is much nearer to it than the calculations made to correct that account, by Dr. Price, and by the very able and ingenious political arithmetician, Mr. Howlet. As the late enumeration ſhews the population of Paris to have been (proportionably to the conſumption of corn) 615,937 ſouls, when its births amounted to 20,550, this fact confirms the general calculation in France, that the births in a great city are to be multiplied by thirty; for the above-mentioned number ſo multiplied, gives 616,500, which comes ſo near the truth, that the difference is not worth correcting. M. Necker's multiplier is confirmed clearly; and the event, which gives to France a population of 26,000,000, has proved, that Dr. Price, who calculated them at above 30,000,000, was as groſly miſtaken in his exaggeration of French populousneſs, as Mr. Howlet has ſhewn him to be in his diminution of that of England. It ſeems indeed to have been the fate of that calculator to have been equally refuted upon almoſt every political queſtion he handled; the miſchief of incloſures—the depopulation of England—the populouſneſs of France—and the denunciation of ruin he pronounced ſo authoritatively againſt a variety of annuitant ſocieties, that have flouriſhed almoſt in proportion to the diſtreſſes he aſſigned them. The conſumption of wine at Paris, on an average of the laſt twenty years, has been from 230,000 to 260,000 muids per annum; average, 245,000. In 1789 it ſunk rather more than 50,000 muids, by ſmuggling, during the confuſions of that period. In 245,000 muids there are 70,560,000 Paris pints, or Engliſh quarts, which makes the daily conſumption 193,315 quarts; and if to this, according to the computation of the *commis* of the barriers, one-ſixth is to be added for ſmuggling, it makes 225,534, which is one-third of a quart, and one-tenth of that third per head per diem. The conſumption of meat is very difficult to be calculated, becauſe the weight of the beaſts is not noted; I can gueſs at it only, and therefore the reader will pay no other attention to what follows than to a mere conjecture. I viewed many hundreds of the oxen, at different times, and eſtimate the average at ſixty ſtone; but as there are doubtleſs many others ſmaller, let us calculate at 50, or 700 lb. and let us drop ſmuggling in theſe caſes, ſince though it may on the whole, be one-ſixth yet it cannot be any thing like that in theſe commodities; the calves at 120lb. the ſheep at 60lb. and the hogs at 100lb.

Oxen, - - - - -	69,893, at 700lb.	48,918,100lb.
Calves, - - - - -	103,271, at 120	12,392,520
Sheep, - - - - -	323,762, at 60	19,425,720
Hogs, - - - - -	36,333, at 100	3,633,200
Total *, - - - - -		84,369,540

This quantity divided amongſt a population of 615,937, gives to each perſon 136lb. of meat for his annual conſumption, or above one-third of a pound per diem. During the ſame twenty years, the conſumption of London was on an average, per annum, 92,539 oxen, and 649,369 ſheep †. Theſe oxen probably weighed 840lb. each, and the ſheep 100lb.; which two articles only, without calves or hogs, make 142,669,660;

* Long ſince this was written, I received Monſ Lavoiſier's *Reſultats d'un ouvrage*, 1791, in which he gives a table of the Paris conſumption; but I do not know on what authority, for the weight per head he makes the total of all meats 82,300,000lb.

† *Report of the Com. of the Court of Common Council*, 1786. Folio. p. 75.

yet

yet theſe quantities do not nearly contain the whole number brought to London, which for want of ſuch taxes as at Paris, can be diſcovered with no certainty. The conſumption of Breſt is regiſtered for the year 1778, when 22,000 people, in 1900 houſes, conſumed 82,000 boiſeau, each 150lb. of corn of all ſorts; 16,000 bariques of wine and brandy, and 1000 of cyder and beer *. This conſumption amounted to per head—corn 2½ ſeptiers, of 240lb. per annum; — wine, brandy, beer, and cyder, one-third of a quart per head per diem. Nancy, in 1733, when it contained 19,645 ſouls, conſumed,

Oxen, 2402.—Calves, 9073.—Sheep, 11,863.——Total, 23,338.

It conſumed, therefore, more than one of theſe pieces per head of its population. In 1738, when it contained 19,831 ſouls, it conſumed,

Oxen, 2309.—Calves, 5058.—Sheep, 9549.——Total, 16,896 †;

above three-fourths each. The conſumption of Paris is three fourths of one of theſe beaſts per head of population. As the fineſt cattle in the kingdom are ſent to the capital, the proportions in number ought to be leſs; but the wealth of that capital would have juſtified the ſuppoſition of a ſtill greater comparative conſumption.

CHAP. XVII.—*Of the Police of Corn in France.*

OF all ſubjects, there is none comparable to the police of corn, for diſplaying the folly to which men can arrive, who do not betray a want of common ſenſe in reaſoning on other topics. One tells us (I confine myſelf chiefly to French authorities, engaged as I am at preſent in reſearches in that kingdom) that the price is in exact proportion to the quantity of corn, and to the quantity of money at the ſame time in the kingdom ‡; and that when wheat fells at 36 livres the ſeptier, it is a proof there is not half enough to laſt till harveſt §. He propoſes to have magazines in every market, and to prohibit, under ſevere penalties, a higher price than 24 livres. This would be the infallible method to have it very ſoon at 50, and perhaps 100 livres. That the price of corn does not depend on the quantity of money, is proved by the ſudden riſe proceeding from alarms, of which this author might have known an inſtance in the year he printed; for Monſ. Necker's memoir to the National Aſſembly was no ſooner diſperſed, than the price roſe in one week 30 per cent.; yet the quantity in the kingdom, both of money and corn, remained juſt as before that memoir was publiſhed. But it has already been ſufficiently proved, that a very ſmall deficiency of the crop will make an enormous difference in the price. I may add, that the mere apprehenſion of a deficiency, whether ill or well founded, will have the ſame effect. From this circumſtance, I draw a concluſion of no trifling import to all governments; and that is, never to expreſs publicly any apprehenſion of a want of corn; and the only method by which government can expreſs their fears, is by proclamations againſt export: prohibitions; ordonances of regulation of ſale; arrets, or laws againſt monopolizers; or vain and frivolous boaſts, like thoſe of Monſ. Necker, of making great imports from abroad—all theſe meaſures have the ſame tendency; they confirm amongſt the people the apprehenſion of want; for when it is found amongſt the loweſt orders, that government is alarmed as well as they themſelves, their own fears augment; they riſe in a rage againſt monopolizers, or ſpeculators, as they ought rather to be called, and then every ſtep they take has the never-

* *Encyclop. Methodique Marine*, t. i. part 1. p. 198. † *Deſcrip. de la Lorraine*, par M. Durival 3 tom. 4to. 1778. t. ii. p. 5. ‡ *Conſid. ſur la Cherté des Grains, par M. Vaudrey.* 1789. 8vo. p. 5. § Ib. p. 7, 8, 19.

failing

failing effect of increaſing the evil; the price riſes ſtill higher, as it muſt do inevitably, when ſuch furious obſtructions are thrown on the interior trade in corn, as to make it a matter of great and ſerious danger to have any thing to do with it. In ſuch a ſituation of madneſs and folly in the people, the plenty of one diſtrict cannot ſupply the want of another, without ſuch a monſtrous premium, as ſhall not only pay the expence of tranſport, but inſure the corn, when lodged in granaries, againſt the blind and violent ſuſpicions of the people. To raiſe this ſpirit, nothing more is neceſſary than for government to iſſue any decree whatever, that diſcovers an alarm; the people immediately are apprehenſive of famine; and this apprehenſion can never take place without creating the reality in a great meaſure. It is therefore the duty of a wiſe and enlightened government, if at any time they ſhould fear a ſhort proviſion of corn, to take the moſt private and cautious meaſures poſſible, either to prevent export, by buying up the corn that is collected for exportation, and keeping it within the kingdom, a meaſure eaſy to be done through individuals, or to encourage import, and to avoid making any public decree or declaration. The hiſtory of corn, in France, during the year 1789, was a moſt extraordinary proof of the juſtneſs of theſe principles. Wherever I paſſed, and it was through many provinces, I made inquiries into the cauſes of the ſcarcity; and was every where aſſured, that the dearneſs was the moſt extraordinary circumſtance in the world: for, though the crop had not been great, yet it was about an average one; and conſequently that the deficiency muſt certainly have been occaſioned by exportation. I demanded, if they were ſure that an exportation had taken place?—They replied, no; but that it might have been done privately: this anſwer ſufficiently ſhewed, that theſe exports were purely ideal. The dearneſs, however, prevailed to ſuch a degree, in May and June particularly, (not without being fomented by men who ſought to blow the diſcontents of the people into abſolute outrage,) that Monſ. Necker thought it right not only to order immenſe cargoes of wheat, and every other ſort of corn, to be bought up all over Europe, but likewiſe in June, to announce to the public, with great parade, the ſteps that he had taken, in a paper called *Memoire inſtructif*, in which he ſtated, that he had bought, and ordered to be bought, 1,404,463 quintaux of different ſorts of grain, of which more than 800,000 were arrived. I was a perſonal witneſs, in many markets, of the effect of this publication; inſtead of ſinking the price, it raiſed it directly, and enormouſly. Upon one market day, at Nangis, from 38 livres to 43 livres the ſeptier of 240lb.; and upon the following one to 49 livres, which was July 1ſt; and on the next day, at Columiers, it was taxed by the police at 4 livres 5*ſ.* and 4 livres 6*ſ.* the 25lb.; but as the farmers would not bring it to market at that price, they ſold it at their farms at 5½ livres, and even 6 livres, or 57 livres the ſeptier. At Nangis it advanced, in fourteen days, 11 livres a ſeptier; and at Columiers a great deal more. Now, it is to be obſerved, that theſe markets are in the vicinity of the capital, for which Monſ. Necker's great foreign proviſion was chiefly deſigned; and conſequently if his meaſures would have had any where a good effect, it might have been expected here; but ſince the contrary happened, and the price, in two markets, was raiſed 25 per cent. we may reaſonably conclude, that it did good no where; but to what was this apparent ſcarcity imputable? Abſolutely to Monſ. Necker's having ſaid in his memoir, *à mon arivée dans la miniſtere je me hâtai de prendre des informations ſur le produit de la récolte & ſur les beſoins des pays étrangers* *. It was from theſe unſeaſonable inquiries in September 1788,

* He has introduced a tiſſue of the ſame ſtuff in his *Memoir ſur L'Adminiſtration de M. Necker, par lui même*, p. 367, where he ſays, with the true ignorance of the prohibitory ſyſtem, "Mon ſyſtême ſur l'exportation des grains eſt infiniment ſimple, ainſi que j'ai eu ſouvent l'occaſion de le developper; il ſe borne à

1788, that all the miſchief was derived. They pervaded the whole kingdom, and ſpread an univerſal alarm; the price in conſequence aroſe; and when once it riſes in France, miſchief immediately follows, becauſe the populace, by their violence, render the internal trade inſecure and dangerous. The buſineſs of the miniſter was done in a moment; his conſummate vanity, which, from having been confined to his character as an author, now became the ſcourge of the kingdom, prohibited the export for no other reaſon, than becauſe the Archbiſhop of Sens had the year before allowed it, in contradiction to that maſs of errors and prejudices which M. Necker's book upon the corn trade had diſſeminated. It is curious to ſee him, in his *Memoir inſtructif*, aſſerting, that France, in 1787, *etoit livrée au commerce des grains dans tout le royaume, avec plus d'activité, que jamais & l'on avoit envoye dans l'etranger une quantité conſiderable de grains.* Now, to ſee the invidious manner in which this is put, let us turn to the regiſter of the *Bureau General de la balance du Commerce*, where we ſhall find the following ſtatement of the corn trade for 1787:

Imports.		*Exports.*	
Wheat, -	8,116,000 liv.	Corn, - -	3,165,600 liv.
Rice, - -	2,040,000	Wheat, -	6,559,900
Barley, - -	375,000	Legumes, -	949,200
Legumes, - -	945,000		10,674,700
	11,476,000		

n'en avoir aucun d'immuable, mais à défendre ou permettre cette exportation ſelon le temps & ſelon les circonſtances." When a man ſtarts upon a rotten foundation, he is ſure to flounder in this manner; the ſimplicity of a ſyſtem to be new-moulded every moment, "ſelon le temps & ſelon les circonſtances!" And who is to judge of theſe ſeaſons and circumſtances? A miniſter? A government? Theſe, it ſeems, are to promulgate laws, in conſequence of their having made inquiries into the ſtate of crops and ſtocks on hand. What preſumption; what an exceſs of vanity muſt it be, which impels a man to ſuppoſe, that the truth is within the verge of ſuch inquiries; or, that he is one line, or one point nearer to it, after he has made them before he began. Go to the Intendant in France, or to the Lord Lieutenant in England, and ſuppoſe him to receive a letter from government directing ſuch inquiries;—purſue the intelligence, follow him to his table for converſation on crops,—or in his ride among the farmers (an idea that may obtain in England, but never was ſuch a ride taken by an Intendant in France) in order to make inquiries; mark the deſultory, broken, and falſe ſpecimens of the intelligence he receives,—and then recur to the ſimplicity of the ſyſtem that is to be founded on ſuch inquiries. Monſ. Necker writes as if we were ignorant of the ſources of his information. He ought to have known that miniſters can never procure it; and that they cannot be ſo good an authority for a whole kingdom, as a country gentleman, ſkilled in agriculture, is for his own pariſh; yet what gentleman would preſume to pronounce upon a crop to the 360th part of its amount, or even to the 20th? But it muſt be obſerved, that all Monſ. Necker's ſimple operations, which cauſed an unlimited import, at an unlimited expence, affected not one twentieth part of a year's conſumption by the people, whoſe welfare he took upon him to ſuperintend. If this plain fact—the undoubted ignorance of every man what the crop is, or has been, in ſuch fractions as $\frac{1}{20}$, $\frac{1}{10}$, $\frac{1}{20}$, and much more $\frac{1}{360}$, be well conſidered, it will ſurely follow, that an abſolute and unbounded liberty in the corn trade is infinitely more likely to have effect, than ſuch paltry, deceitful, and falſe inquiries as this miniſter, with his ſyſtem of complex ſimplicity, was forced, according to his own account, to rely upon. Let the reader purſue the paſſage, p. 369, the *prévoyance* of government—*application*—*hâter le mouvement du commerce*—*attrait prochain*—*calculs*. A pretty ſupport for a great nation! Their ſubſiſtence is to depend on the combination of a viſionary declaimer, rather than on the induſtry and energy of THEIR OWN exertions. Monſ. Necker's performance deſerves an attentive peruſal, eſpecially when he paints pathetically the anxieties he ſuffered on account of the want of corn. I wiſhed that thoſe who read it would only carry in their minds this undoubted fact, that the ſcarcity which occaſioned thoſe inquietudes was abſolutely and ſolely of his own creating; and that if he had not been miniſter in France, and that government had taken no ſtep whatever in this affair, there would not have been ſuch a word as ſcarcity heard in the kingdom. He converted, by his management, an ordinarily ſhort crop into a ſcarcity; and he made that ſcarcity a famine; to remedy which, he aſſumes ſo much merit, as to nauſeate a common reader.

This account ſhews pretty clearly how well founded the miniſter was, when he attempted to throw on the wiſe meaſure of his predeceſſor the miſchiefs which aroſe from his own pernicious prejudices alone; and how the liberty of commerce, which had taken place moſt advantageouſly in conſequence of the free trade in 1787, had been more an import trade than an export one; and of courſe, it ſhews, that when he adviſed his ſovereign to prohibit that trade, he acted directly contrary even to his own principles; and he did this at the hazard of raiſing a general alarm in the kingdom, which is always of worſe conſequence than any poſſible export. His whole conduct, therefore, was one continued ſeries of ſuch errors, as can, in a ſenſible man, be attributed only to the predominant vanity that inſtigated him to hazard the welfare of a great nation to defend a treatiſe of his own compoſition. But as this miniſter thought proper to change the ſyſtem of a natural export and import; and to ſpread, by his meaſures, an alarm amongſt the people, that ſeemed to confirm their own apprehenſions, let us next examine what he did to cure the evils he had thus created. He imported, at the enormous expence of 45,543,697 livres (about 2,000,000 ſterling) the quantity of 1,404,465 quintaux of corn of all ſorts, which, at 240lb. make 585,192 ſeptiers, ſufficient to feed no more than 195,064 people a year. At three ſeptiers per head, for the population of 26 millions of mouths, this ſupply, thus egregiouſly boaſted of, would not, by 55,908 ſeptiers, feed France even for three days; for her daily conſumption is 213,700 ſeptiers, nor have I the leaſt doubt of more perſons dying of famine, in conſequence of his meaſures, than all the corn he procured would feed for a year*. So abſolutely contemptible is all importation as a remedy for famine! and ſo utterly ridiculous is the idea of preventing your own people from being ſtarved, by all owing an import which, in its greateſt and moſt forced quantities, bears ſo trifling a proportion to the conſumption of a whole people, even when bribed, rather than bought from every country in Europe! But a concluſion of much greater importance is to be deduced from theſe curious facts, in the moſt explicit confirmation of the preceding principles, that all great variations in the price of corn are engendered by apprehenſion, and do not depend on the quantity in the markets. The report of Monſ. Necker's meaſures we have found, did not ſink, but raiſed the price: providing France with leſs than three days bread, when blazed forth with all the apparatus of government, actually raiſed the price in the markets, where I was a witneſs, 25 per cent. Of what poſſible conſequence was three days proviſion added to the national ſtock, when compared with the miſery and famine implied—and which actually took place in conſequence of puſhing the price up ſo enormouſly, by Monſ. Necker's meaſures? Would it not have been infinitely wiſer never to have ſtopped the trade, which I have proved to have been a trade of import?—Never to have expreſſed any ſolicitude?—Never to have taken any public ſteps, but to have let the demand and ſupply quietly meet, without noiſe and without parade? The conſequence would have been, ſaving forty-five millions of the public money, and the lives of ſome hundred thouſands, ſtarved by the high price that was created, even without a ſcarcity; for I am firmly perſuaded, that if no public ſtep whatever had been taken, and the archbiſhop of Sens' edict never repealed, the price of wheat in no part of France would have ſeen, in 1789, ſo high a rate as 30 livres, inſtead of riſing to 50 and 57 livres. If there is any truth in theſe principles, what are we to think of the firſt miniſter hunting after a little popularity, and boaſting

* At a moment when there was a great ſtagnation in every ſort of employment, a high price of bread, inſtead of a moderate one, muſt have deſtroyed many; there was no doubt of great numbers dying for want in every part of the kingdom. The people were reduced in ſome places to eat bran and boiled graſs. *Journal de l'Alp Nat.* tom. i.

in his *Memoire*, that the King allowed only bread of wheat and rye mixed to be ſerved at his own table? What were the concluſions to be looked for in the people, but that if ſuch were the extremities to which France was reduced, all were in danger of death for want of bread. The conſequence is palpable; a blind rage againſt monopolizers, hanging bakers, ſeizing barges, and ſetting fire to magazines; and the inevitable effect of a ſudden and enormous riſe in the price, wherever ſuch meaſures are precipitated by the populace, who never are truly active but in their own deſtruction. It was the ſame ſpirit that dictated the following paſſage, in that *Memoire inſtructif*, "*Les accaparemens ſont la premiere cauſe à laquelle la multitude attribue la cherté des grains, & en effet on ſouvent eu lieu de ſe plaindre de la cupidité des ſpeculateurs* *." I cannot read theſe lines, which are as untrue in fact as erroneous in argument, without indignation. The multitude never have to complain of ſpeculators; they are always greatly indebted to them. There is no ſuch thing as monopolizing corn but to the benefit of the people†. And all the evils of the year 1789 would have been prevented, if monopolizers, by raiſing the price in the preceding autumn, and by leſſening the conſumption,

* This is pretty much like his ſending a memoir to the National Aſſembly, which was read October 24, in which the miniſter ſays *Il eſt donc urgent de défendre de plus en plus l'exportation en France; mais il eſt difficile de veiller à cette prohibiton. On a fait placer des cordons de troupes ſur les frontiers á cette effet. Journal des Etats Generaux*, tom. v. p. 194. Every expreſſion of this nature becoming public, tended to inflame the people, and conſequently to raiſe the price.

† I am much inclined to believe, that no ſort of monopoly ever was, or ever can be injurious without the aſſiſtance of government; and that government never tends in the leaſt to favour a monopoly without doing infinite miſchief. We have heard in England of attempts to monopolize hemp, allum, cotton, and many other articles: ill-conceived ſpeculations, that always ended in the ruin of the ſchemers, and eventually did good, as I could ſhew, if this were the proper place. But to monopolize any article of common and daily ſupply and conſumption to a miſchievous degree, is abſolutely impoſſible: to buy large quantities, at the cheapeſt ſeaſon of the year, in order to hoard and bring them out at the very deareſt moment, is the idea of a monopolizer or *accapereur*: this is, of all other tranſactions, the moſt beneficial towards an equal ſupply. The wheat which ſuch a man buys is cheap, or he would not buy it with a view to profit: What does he do then? He takes from the market a portion, when the ſupply is large; and he brings that portion to the market when the ſupply is ſmall; and for doing this you hang him as an enemy. Why? Becauſe he has made a private profit, perhaps a very great one, by coming in between the farmer and the conſumer. What ſhould induce him to carry on his buſineſs, except the deſire of profit? But the benefit of the people is exactly in proportion to the greatneſs of that profit, ſince it ariſes directly from the low price of corn at one ſeaſon, and the dearneſs of it at another. Moſt clearly any trade which tends to level this inequality is advantageous in proportion as it effects it. By buying great quantities when cheap, the price is raiſed, and the conſumption forced to be more ſparing: this circumſtance can alone ſave the people from famine; if, when the crop is ſcanty, the people conſume plentifully in autumn, they muſt inevitably ſtarve in ſummer; and they certainly will conſume plentifully if corn is cheap. Government cannot ſtep in and ſay, you ſhall now eat half a pound of bread only, that you may not by and by be put to half an ounce. Government cannot do this without erecting granaries, which we know, by the experience of all Europe, is a moſt pernicious ſyſtem, and done at an expence which, if laid out in premiums, encouraging cultivation, would convert deſerts into fruitful corn-fields. But private monopolizers can and do effect it; for by their purchaſes in cheap months they raiſe the price, and exactly in that proportion leſſen the conſumption; this is the great object, for nothing elſe can make a ſhort crop hold out through the year: when once this is effected, the people are ſafe; they may pay very dear afterwards, but the corn will be forth-coming, and they will have it though at an high price. But reverſe the medal, and ſuppoſe no monopolizers; in ſuch a caſe, the cheapneſs in autumn continuing, the free conſumption would continue with it: and an undue portion being eaten in winter, the ſummer would come without its ſupply: this was manifeſtly the hiſtory of 1789; the people enraged at the idea of monopolizers, not at their real exiſtence, (for the nation was ſtarving for want of them,) hung the miſerable dealers, on the idea of their having done what they were utterly unable to do. Thus, with ſuch a ſyſtem of ſmall farms as empty the whole crop into the markets in autumn, and make no reſerve for ſummer, there is no poſſible remedy, but many and great monopolizers, who are beneficial to the public exactly in proportion to their profits. But in a country like England divided into large farms, ſuch corn dealers are not equally wanted; the farmers are rich enough to wait for their returns, and keep a due reſerve in ſtacks to be threſhed in ſummer; the beſt of all methods of keeping corn and the only one in which it receives no damage.

had divided the ſupply more equally through the year. In a country like France, ſubdivided miſchievouſly into little farms, the quantity of corn in the markets in autumn is always beyond the proportion reſerved for ſupplying the reſt of the year; of this evil, the beſt remedy is, enlarging the ſize of farms; but when this does not take place, the dealings of monopolizers are the only reſource. They buy when corn is cheap, in order to hoard it till it is dear; this is their ſpeculation, and it is preciſely the conduct that keeps the people from ſtarving; all imaginable encouragement ſhould be given to ſuch merchants, whoſe buſineſs anſwers every purpoſe of public granaries, without any of the evils that are ſure to flow from them *. It may eaſily be conceived, that in a country where the people live almoſt entirely on bread, and the blind proceedings of mobs are encouraged by arrets of parliaments, ſeconded by ſuch blunders of government as I have deſcribed, and unaided by the beneficial exiſtence of real monopolizers; it may eaſily be conceived, I ſay, that the ſupply muſt be irregular, and in many inſtances inſufficient; it muſt be inſufficient, exactly in proportion to the violence of the populace; and a very high price will be the unavoidable conſequence, whatever may be the quantity in the kingdom. In June and July 1789, the markets were not opened before troops arrived to protect the farmers from having their corn ſeized; and the magiſtrates, to avoid inſurrections among the people, ſet the aſſize too low upon corn, bread, and butcher's meat; that is, they fixed the prices at which they were to be ſold, which is a moſt pernicious regulation. The farmers, in conſequence, refrained from going to market, in order to ſell their wheat at home at the beſt price they could get, which was of courſe much higher than the aſſize of the markets. How well theſe principles, which ſuch ample experience proves to be juſt, are underſtood in France, may be collected from the *cahiers*, many of whom demand meaſures which, if really purſued, would ſpread abſolute famine through every province in the kingdom. It is demanded at one place, "that as France is expoſed to the rigours of famine, every farmer ſhould be obliged to regiſter his crop of every kind, gerbs, bottes, muids, &c.; and alſo every month the quantity ſold †." Another requires, "that export be ſeverely prohibited, as well as the circulation from province to province; and that importation be always allowed ‡." A third §, "that the ſevereſt laws be paſſed againſt monopolizers; a circumſtance which at preſent deſolates the kingdom." A ſyſtem of prohibition of export is demanded by no leſs than twelve *cahiers* ‖. And fifteen demand the erection of public magazines ¶. Of all ſoleciſms, none ever equalled Paris demanding that the tranſport of corn from province to province ſhould be prohibited. Such a requeſt is

* Well has it been obſerved by a modern writer, *Lorſque les récoltes manquent en quelque lieu d'un grand empire, les travaux du reſte de ſes provinces étant payes d'une heureuſe fécundité ſuffiſent à la conſommation de la totalité. Sans ſollicitude de la part du gouvernement, ſans magazins publics, par le ſeul effet d'une communication libre & facile on n'y connoit ni diſette ni grande cherté. Theorie de Luxe*, tom. i. p. 5.

† *Tier Etat de Mendon.* p. 36. ‡ *Tier Etat de Paris*, p. 43. § *Tier Etat de Reims*, art. 110.

‖ *Nob. de Queſnoy*, p. 24. *Nob. de St. Quintin*, p. 9. *Nob. de Lille*, p. 20. *T. Etat de Reims*, p. 20. *T. Etat de Rouen*, p. 43. *T. Etat de Dunkerque*, p. 15. *T. Etat de Metz*, p. 46. *Clergé de Rouen*, p. 24. *T. Etat de Rennes*, p. 65. *T. Etat de Valenciennes*, p. 12. *T. Etat de Troyes*, art. 96. *T. Etat de Dourdon*, art. 3.

¶ I have lately ſeen (January, 1792) in public print, the mention of a propoſal of one of the miniſters to erect public magazines; there wants nothing elſe to complete the ſyſtem of abſurdity in relation to corn which has infeſted that fine kingdom. Magazines can do nothing more than private accapereurs; they can only buy when corn is cheap, and ſell when it is dear; but they do this at ſuch a vaſt expence, and with ſo little œconomy, that if they do not take an equal advantage and profit with private ſpeculators, they muſt demand an enormous tax to enable them to carry on their buſineſs; and if they do take ſuch profit, the people are never the better for them. Mr. Symonds, in his paper on the public magazines of Italy, has proved them to be every where nuiſances. See *Annals of Agriculture*, vol. xiii. p. 299. &c.

really

really edyfying, by offering to the attention of the philoſophical obſerver, mankind under a new feature, worthy of the knowledge and intelligence that ought to reign in the capital of a great empire; and Monſieur Necker was exactly ſuited to be miniſter in the corn department of ſuch a city!—The concluſions to be drawn from the whole buſineſs, are evident enough. There is but one policy which can ſecure a ſupply with entire ſafety to a kingdom ſo populous and ſo ill * cultivated as France, with ſo large a portion of its territory under wood and vines; the policy I mean is an entire and abſolute liberty of export and import at all times, and at all prices, to be perſiſted in with the ſame unremitted firmneſs, that has not only reſcued Tuſcany from the jaws of periodical famines, but has given her eighteen years of plenty, without the intervention of a moment's want. A great and important experiment! and if it has anſwered in ſuch a mountainous, and, in compariſon with France, a barren territory, though full of people, aſſuredly it would fulfil every hope, in ſo noble and fertile a kingdom as France. But to ſecure a regular and certain ſupply, it is neceſſary that the farmer be equally ſecure of a ſteady and good price. The average price in France vibrates between 18 and 22 livres a ſeptier of 240lb†. I made enquiries through many provinces in 1789, into the common price, as well as that of the moment, and found (reducing their meaſures to the ſeptier of 240lb.) that the mean price in Champagne is 18 livres; in Loraine 17½; in Alſace 22 livres; in Franche Comté 20 livres: in Bourgogne 18 livres; at Avignon, &c. 24 livres; at Paris, I believe, it may be calculated at 19 livres. —Perhaps the price, through the whole kingdom, would be found to be about 20 livres. Now, without entering into any analyſis of the ſubject, or forming any compariſon with other countries, France ought to know, at leaſt ſhe has dearly learned from experience, that this is not a price ſufficient to give ſuch encouragement to the farmers as to ſecure her a certainty of ſupply: no nation can have enough without a ſurplus; and no ſurplus will ever be raiſed, where there is not a free corn trade.—The object, therefore, of an abſolutely free export, is to ſecure the home ſupply. The mere profit of ſelling corn is no object; it is leſs than none; for the right uſe thereof is to feed your own people. But they cannot be fed, if the farmers have not encouragement to improve their agriculture; and this encouragement muſt be the certainty of a good

* The aſſertion of the Marquis de Caſſaux, "that the free corn trade eſtabliſhed by Monſ. Turgot, increaſed the productions of the agriculture of France as 150 to 100," (*Seconde Suite de Conſid. ſur les Mech. des Soc.* p. 119.) muſt be received with great caution. That of Monſ Millot, "that the lands of the ſame kingdom produced five times as much in Henry IV.'s reign as they do at preſent," is a very groſs error, irreconcileable with the leaſt probability. *Elem. de l'Hiſt. Gen.* t. ii. p. 488.

† Price of Wheat at Paris, or at Roſoy, for 146 years.

Price of 73 Years, the reign of Louis XIV.

		Liv.	Sol.	Den.
From 1643 to 1652	—	35	14	1
1653 to 1662	—	32	12	2
1663 to 1672	—	23	6	11
1673 to 1682	—	25	13	8
1683 to 1692	—	22	0	4
1693 to 1702	—	31	16	1
1703 to 1712	—	23	17	1
1713 to 1715	—	33	1	6
General Average		28	1	5

Price of 73 Years, the Reigns of Louis XV. and XVI.

		Liv.	Sol.	Den.
From 1716 to 1725	—	17	10	9
1726 to 1735	—	16	9	4
1736 to 1745	—	18	15	7
1746 to 1755	—	18	10	1
1756 to 1765	—	17	9	1
1766 to 1775	—	28	7	9
1776 to 1785	—	22	4	7
1786	—	20	12	6
1787	—	22	2	6
1788	—	24	0	0
General average		20	1	4

De la Balance du Commerce, tom. 3.

price.

price. Experience has proved ſufficiently, that 20 livres will not do. An abſolute freedom of interior circulation is ſo obviouſly neceſſary, that to name it is ſufficient *.

A great and decided encouragement to monopolizers † is as neceſſary to the regular ſupply, as that ſeed ſhould be ſown to procure a crop; but reaping, in order to load the markets in winter, and to ſtarve the people in ſummer, can be remedied by no other perſon but an *accapareur*. While ſuch men are therefore objects of public hatred; while even laws are in force againſt them, (the moſt prepoſterous that can diſgrace a people, ſince they are made by the mouth, againſt the hand for lifting food to it,) no regular ſupply can be looked for. — We may expect to ſee famine periodical, in a kingdom governed by the principles which muſt take place, where the populace rule not by enlightened repreſentatives, but by the violence of their ignorant and unmanageable wills. Paris governs the National Aſſembly; and the maſs of the people, in great cities, are all alike abſolutely ignorant how they are fed; and whether the bread they eat be gathered like acorns from a tree, or rained from the clouds, they are well convinced, that God Almighty ſends the bread, and that they have the beſt poſſible right to eat it. The courts of London, aldermen and common councilmen, have, in every period, reaſoned juſt like the populace of Paris ‡. The preſent ſyſtem of France, relative to agriculture, is curious:

To encourage inveſtments in land,
I. *Tax it Three Hundred Millions.*

* The internal ſhackles on the corn trade of France, are ſuch as will greatly impede the eſtabliſhment of that perfect freedom which alone forms the proper regulation for ſuch a country. M. Turgot, in his *Lettres ſur les Grains*, p. 126, notices a moſt abſurd duty at Bourdeaux, of 20*ſ.* per ſeptier on all wheat conſumed there, or even depoſited for foreign commerce, a duty which ought to have prevented the remark of the author of *Credit National*, p. 222, who mentions, as an extraordinary fact, "that at Toulouſe there is a duty of 12*ſ* per ſeptier on grinding, yet bread is cheaper there than at Bourdeaux." Surely it would be ſo; it ought to be 8*ſ.* the ſeptier cheaper.

† The word ſpeculator, in various paſſages of this chapter, would be as proper as monopolizer, they mean the ſame thing as *accapareur*; a man who buys corn with a view to ſelling it at a higher price; whatever term is uſed, the thing meant is every where underſtood.

‡ Aldermen, common councilmen, and mobs, are conſiſtent when they talk nonſenſe; but philoſophers are not ſo eaſily to be pardoned; when M. l'Abbé Rozier declares, *que la France recolté année ordinaire près du double plus de bled qu'elle n'en conſomme*, (*Recueil de Mémoires ſur la Culture & le Louiſſage du Chanvre*, 8vo. 1787. p. 5.) he wrote what has a direct tendency to inflame the people; for the concluſion they muſt draw is, that an immenſe and incredible export is always going on. If France produces in a common year double her conſumption, what becomes of the ſurplus? Where are the other 25 millions of people that are fed with French corn? Where do the 78,000,000 of ſeptiers go that France has to ſpare; a quantity that would load all the ſhips poſſeſſed by that kingdom above thirty times to carry it. Inſtead of the common crop equalling two years conſumption, it certainly does not equal thirteen months common conſumption; that is ſuch a conſumption as takes place at an average price. And all the difference of crops is, that conſumption is moderate with a bad product, and plentiful with a good one. The failure of a crop in one province in a very ſmall degree, which, under a good government, and entire liberty of trade, would not even be felt, will, under a ſyſtem of reſtrictions and prohibitions, raiſe the price through the whole kingdom enormouſly; and if meaſures are taken to correct it by government, they will convert the price into a famine. The author of *Traité d'Economie Politique*, 8vo. 1783, p. 59, does not talk quite ſo greatly, when he ſays a good crop will feed France a year and a half; but pretty near it. The abſurdities that daily appear on this ſubject are aſtoniſhing. In a work now publiſhing it is ſaid, that a moderate crop furniſhes England for three years, and a good one for five. *Encyclopædie Methodique Economie Pol.* pt. i. tom. i. p. 75. This aſſertion is copied from an Italian, *viz Zanoni dell' Agricoltura*, 1763, 8vo. tom. i. p. 109, who took it verbatim from *Eſſais ſur divers Sujets interreſſans de Politique et de Morale*, 8vo. 1760. p. 216. It is thus that ſuch nonſenſe becomes propagated; when authors are content to copy one another, without knowledge or conſideration.

To enable the land to pay it,
II. *Prohibit the Export of Corn.*
That cultivation may be rich and ſpirited,
III. *Encourage ſmall Farms.*
That cattle may be plentiful,
IV. *Forbid the Incloſure of Commons.*
nd that the ſupply of the markets may be equal in ſummer as in winte..
V. *Hang all Monopolizers.*

Such may be called the agricultural code of the new government of France!

CHAP. IV. *Of the Commerce of France.*

AGRICULTURE, manufactures, and commerce, uniting to form what may be properly termed the maſs of national induſtry, are ſo intimately connected in point of intereſt, under the diſpenſations of a wiſe political ſyſtem, that it is impoſſible to treat amply of one of them, without perpetually recurring to the others. I feel, in the progreſs of my undertaking, the impoſſibility of giving the reader a clear idea of all the intereſts of French agriculture, without inſerting, at the ſame time, ſome details of manufactures and commerce. The opportunities I poſſeſſed of gaining ſome valuable intelligence, enable me to inſert ſeveral accounts hitherto unpubliſhed, which I believe my commercial readers (ſhould I have any ſuch) will not be diſpleaſed to examine.

Imports into France in 1784.

	liv.		liv.
Wood,	816,200	Flax-ſeed,	612,600
Timber,	1,866,800	Hops,	272,400
Hoops, &c.	92,100	Tallow loaves,	1,133,400
Staves,	628,500	Refuſe of ſilk,	94,900
Planks,	2,412,000	Hemp,	4,385,300
Pitch and tar,	825,200	Hemp and flax thread,	2,091,100
Aſhes,	1,372,600	Thread of refuſe ſilk,	55,800
Soda and pot-aſh,	3,873,900	Various wools,	25,925,000
Kelp,	50,700	Spun ditto,	119,400
Peat aſhes for manure	665,100	Vigonia ditto,	259,800
Grain,	141,500	Flax,	1,109,500
Millet and Canary,	51,400	Silk raw,	29,582,700

Manufactured Goods.

Mercery, thread, and boneterie,	335,500	Table linen,	99,200
Woollen ſtuffs,	81,300	Linen called *platile*,	602,100
Ditto ſilk,	430,700	——— *treilis*,	892,700
Bours d'œſt,	252,200	——— *coutis* hemp,	432,000
Silk gauzes,	54,700	Sail Cloth,	157,700
Silk handkerchiefs,	115,900	Candles,	50,300
Silk ribbons,	374,400	Yellow wax,	1,317,900
Ribbons of wool,	87,500	Cordage,	99,000
Thread ribbons,	1,406,100	Horſe-hair,	59,000
Ribbons of thread and wool,	92,700	Raw hides,	2,805,400
Linen, flax and hemp, mixed,	1,918,600	Diſtilled waters and oils,	875,500
Linen of flax,	4,849,700	Eſſences,	126,500

Dreſſes,

	liv.		liv.
Dreſſes,	93,200	— calves.	115,800
Oil of grain,	248,300	— hares and rabbits,	78,600
Corks,	219,300	Quills,	143,900
— in plank,	97,100	feathers,	81,700
Skins,	873,400	Hog and wild boar hair,	148,400
— goats and kids,	148,400	Coaches,	783,900

Edibles.

Almonds,	140,600	Various wines,	684,900
Butter,	880,100	Deſert wines,	562,200
Salt beef,	1,716,400		
Salt pork,	181,600	*Live-ſtock.*	
Cheeſe,	3,362,700	Cattle of all ſorts,	31,800
Fruits,	238,100	Oxen,	1,355,200
Lemons and oranges, &c. (in No. 17,543,000),	731,000	Sheep,	1,087,000
		Hogs,	276,100
Sweetmeats,	52,800	Cows and bulls,	1,264,800
Dried fruits and figs,	254,600	Calves,	89,300
Dried grapes,	248,300	Horſes,	2,052,900
Wheat,	5,347,900	Mules,	148,400
Rye,	139,800		
Barley,	163,800	*Drugs.*	
Oil of Olives,	25,615,700	Liquorice juice,	67,300
Legumes,	55,900	Gaul nuts,	313,000
Vermicelli,	207,200	Madder,	476,600
Salt,	113,800	Roots of Alliſary,	226,300
Various edibles	90,800	Saffranam,	578,700
Beer,	383,500	Shumac,	73,200
Brandy of wine,	1,151,900	Turnſole,	87,600
—— corn,	1,086,900	Tobacco leaf,	5,993,100
Liqueurs and lemon juice,	62,900		

Exports the ſame Year.

Various woods,	89,600	Laces of thread and ſilk,	445,300
Plank,	66,300	Woollen cloth,	15,530,900
Pitch and tar,	255,700	Various ſtuffs,	122,300
Common aſhes,	152,000	Woollen ſtuffs,	7,491,300
Charcoal,	70,600	Stuffs of thread and wool,	109,300
Coals,	419,000	hair,	3,655,700
Grains,	148,900	hair and wool,	633,600
Coleſeed,	144,900	rich in gold,	1,538,500
Garden-ſeeds,	75,700	Silk ſtuffs,	14,834,100
Flax-ſeed,	248,900	Stuffs mixed with ſilk,	649,600
Bours of ſilk,	94,700	Silk gauzes,	5,452,000
Hemp,	47,200	Thread and ſilk gauzes,	209,000
Thread of flax and hemp,	143,400	Thread and cotton handkerchiefs,	405,800
Wool,	1,576,300	Silk handerchiefs,	118,000
Silk,	2,657,600	Silk ribbons,	1,231,900
Boneterie of thread, &c.	175,100	Linen of flax and hemp mixed,	12,427,200
ſiloſel,	83,400	—— flax,	1,727,800
Woollen ſtockings,	365,500	—— fine,	346,300
Woollen caps,	413,100	Cambric and linen,	6,173,200
Boneterie of ſilk,	3,375,100	Linen of thread and cotton,	291,400
Hats,	86,200	—— ſiamoiſes,	1,047,600
Boneterie of hair and wool,	910,300	—— hemp,	344,300
Silk laces,	2,589,200	Candles,	78,700

	liv.		liv.
Wax,	449,800	Raw ditto,	134,500
Wax candles,	90,400	Dried ditto,	69,600
Woollen blankets,	129,800	Prunes dried,	791,700
Raw leathers,	96,300	Grapes,	324,200
Prepared leathers,	304,500	Wheat,	2,608,300
Leather curried,	137,700	Rye,	239,400
tanned,	698,100	Meslin and Maize,	52,700
Distilled water and oils	167,500	Indian corn,	633,100
Gloves of Skins,	63,900	Barley,	321,100
——— Grenoble,	491,700	Legumes,	558,600
Dresses,	131,100	Oil of Olives,	1,346,100
Oil of grains,	368,100	Honey,	361,800
Cork,	65,500	Eggs,	75,200
—— in plank,	110,600	Salt,	2,189,800
Cabinet ware,	65,700	Wine brandy,	11,035,200
Willow ware,	54,800	Corn ditto,	1,545,500
Cole seed cakes,	547,600	Liqueurs,	205,300
Parchment,	76,100	Wines,	6,807,900
Perfumery,	196,100	Wines of Bourdeaux,	16,150,900
Various skins,	123,500	Vinegar,	124,400
Skins of goats and kids,	156,800	Cattle,	108,600
——— calves prepared,	448,600	Oxen (No. 7659),	1,083,200
——— sheep ditto,	312,500	Sheep (No. 104,990),	1,017,200
——— calves curried,	1,571,100	Hogs,	965,800
——— sheep and calves tanned,	256,000	Cows and bulls,	227,000
Feathers prepared,	54,600	Horses,	455,700
Soap,	1,376,700	Mules,	1,509,000
Various edibles,	49,100	Saffron,	239 200
Almonds,	450,800	Oil of terebinth,	46,000
Butter,	118,400	Terebinth,	128,400
Salt meat,	121,400	Verdigrise,	266,300
Flour,	1,271,500	Tobacco leaf,	418,400
Cheese,	144,100	—— rappé,	653,100
Various fruits,	279,000		

N. B. The provinces of Loraine, Alsace, and the three bishoprics, are not included in this account, nor any export or import to or from the West Indies.

Total export,	307,151,700 livres.
—— import,	271,365,000
Balance,	35,786,700=£.1,565,668 sterling.

Imports into France in 1787.

	liv.		liv.
Steel from Holland, Switzerland, and Germany,	867,000	Coals from England, Flanders, and Tuscany,	5,674,000
Copper,	7,217,000	Woods from the Baltic,	5,405,000
Tin from England,	885,000	Woods *feuillard & merein*,	1,593,000
Iron from Sweden and Germany,	8,469,000	Cork from Spain,	2,262,000
Brass from ditto,	1,175,000	Pitch and tar,	1,557 000
Lead from England and the Hanseatic towns,	2,242,000	Ashes, soda, and pot-ash,	5,762,000
Steel manufactures from Germany and England,	4,927,000	Yellow wax,	2,260,000
		Garden seeds, flax, and millet,	1,115,000
		Madder and roots of Allisary,	962,000

Wheat,

	liv.
Wheat,	8,116,000
Rice,	2,040,000
Barley,	375,000
Legumes,	945,000
Fruits,	3,060,000
Butter,	2,507,000
Salt beef and pork,	2,960,000
Cheese,	4,522,000
Oil of Olives,	16,645,000
Brandy of corn,	1,874,000
—— of wine,	3,715,000
Wines,	1,489,000
Beer,	469,000
Oxen, sheep, and hogs,	6,646,000
Horses and mules,	2,911,000
Raw hides,	2,707,000
Skins not prepared,	1,180,000
Goat's hair from Levant,	1,137,000
Bristles of hogs and wild boars,	275,000
Tallow,	3,111,000
Raw wool,	20,884,000
Woollen stuffs,	4,325,000
Raw silk,	28,266,000
Silk manufactures,	4,154,000
Flax,	6,056,000
Linens of flax,	11,955,000
Hemp,	5,040,000
Linen of hemp,	6,544,000
Cotton from the Brazils, the Levant, and Naples,	16,494,000
Cotton manufactures,	13,448,000
Tobacco,	14,142,000
Drugs, spices, glass, pottery, books, feathers, &c. &c.	61,820,000

Exports in the same Year.

	liv.
Timber and wood of all sorts,	166,000
Pitch and Tar,	317,100
Ashes for manure,	59,400
Charcoal,	31,300
Vetch hay,	12,000
Garden seeds, flax-seed, &c.	988,500
Grease,	17,300
Hops,	105,600
Tallow-loaves,	145,600
Cocoon silk refuse,	41,500
Threads of all sorts,	241,800
Hemp,	117,100
Wool, raw, and spun,	4,378,905
Flax,	22,800
Rabbits' wool,	10,400
Silk,	628,000
Starch,	32,200
Candles,	131,900
Horses,	42,100
Wax,	307,800
Cordage,	268,000
Tanned leather,	1,280,300
Raw leather,	116,000
Distilled waters and oils,	162,500
Pigeon's dung,	37,000
Spirit of wine,	144,700
Essences,	10,000
Staves,	22,800
Gloves,	428,900
Linseed-oil,	174,800
Corks,	139,000
Cole-seed oil cakes	429,500
Shee, roebuck, and calve-skins tanned,	2,705,200
Feathers for beds,	51,100
Soap,	1,752,800
Almonds,	850,500
Butter,	88,600
Salted meat,	487,700
Preserved fruits,	1,518,600
Corn of all sorts, except hereafter named,	2,165,600
Wheat,	6,559,900
Legumes,	949,200
Olive oil,	1,732,400
Honey,	644,600
Eggs,	99,800
Salt,	2,322,500
Poultry,	35,700
Cyder,	17,500
Brandy of wine (114,044 muids,)	14,455,600
Liqueurs,	234,000
Wines in general (159,222 muids,)	8,558,200
—— Bourdeaux (201,246 muids,)	17,718,100
—— Vin de liqueurs,	10,000
Vinegar,	130,900
Oxen, hogs, sheep, &c.	5,074,200
Mules, horses, asses,	1,453,700
Juice of lemons,	60,000
—— liquorice,	35,500
Liquorice,	24,600
Saffron,	214,900
Roots of Allisary,	1,500
Salt of tartar,	14,900
Shumac,	10,200
Terebinth,	33,100
Turnsole,	12,200
Verdigrise,	512,400
Cloth,	14,242,400
Woollen stuffs,	5,615,800
Cotton, linen, cambric, &c.	19,692,000
Of this cambric, 5,230,000 liv.	

Total exports, including the articles not here minuted,	349,725,400 liv.	
—— imports,	310,184,000	
Balance,	39,541,400	£.1,729,936 ſterling.

EXPLANATION.—The contraband trade of export and import has been calculated, and the true balance found to be about 25,000,000 liv. (1,093,750l.,) the provinces of Loraine, Alſace, the three biſhoprics, and the Weſt-Indies, not included.

Obſervations.

The preceding accounts of the trade of France, for theſe two years, are correct in all probability in the articles noted; but that they are imperfect there is great reaſon to believe. In 1787 there is an import of raw metals to the amount of above twenty millions: but in the account of 1784 there is no ſuch article in the liſt, which is plainly an omiſſion. And though coals are among the exports in 1784, there are none in the imports, which is another omiſſion. In the manufactured articles alſo are various omiſſions, not eaſily to be accounted for, though the treaty of commerce explains ſome articles, as that of cotton manufactures, &c.: the idea to be formed of the exports and imports of France ſhould be gathered from an union of the two, rather than from either of them ſeparate. No idea, thus to be gained or acquired by any other combinations, will allow for one moment the poſſibility of a balance of commerce of 70,000,000 livres, (3,062,500l.) in favour of France, which Monſ. Necker has calculated it to be, in his book, *De l'Adminiſtration des Finances*, and which calculation the Marquis de Caſſaux, in his *Mechaniſm des Societés*, has refuted in an unanſwerable manner. It will be curious to examine what is the amount of the imports of the produce of land, minerals excluded.

In 1784 the imports of the produce of land amounted to,	liv.	In 1787 the ſame articles are,	liv.
Wool,	25,925,000	Wool,	20,884,000
Silk,	29,582,700	Silk,	28,266,000
Hemp and flax,	5,494,800	Hemp and flax,	11,096,000
Oil,	25,615,700	Oil,	16,645,000
Live ſtock and its produce,	18,398,400	Live ſtock,	29,079,000
Corn,	5,651,500	Corn,	11,476,000
Sundries,	24,860,700	Tobacco,	14,142,000
		Sundries,	24,206,000
	135,558,800		155,794,000

She may be ſaid, therefore, to import in a common year about 145,000,000 livres (6,343,750l.) of agricultural products: and theſe imports are a ſtriking proof, that I was not wide of the truth when I condemned ſo ſeverely the rural œconomy of France in almoſt every particular, the culture of vines alone excepted. For the country, of all Europe, the beſt adapted by nature to the production of wool, to import ſo immenſely, ſhews how wretchedly they are underſtocked with ſheep; and how much their agriculture ſuffers for want of the fold of theſe five or ſix millions, in which they are deficient even for their own demand. The import of ſuch great quantities of other ſorts of live ſtock alſo ſpeaks the ſame language. Their huſbandry is weak and languiſhing in every part

part of the kingdom, for want of larger ſtocks of cattle, and the national demands cannot be ſupplied. In this trade of live ſtock there is, however, one circumſtance which does the higheſt honour to the good ſenſe and policy of the old French government; for though wool was ſo much wanted for their fabrics, and many meaſures were taken for increaſing ſheep and improving the breed, yet was there no prohibition on the export either of live ſheep or wool, nor any duty farther than for aſcertaining the amount. It appears that they exported above 100,000 ſheep annually; and this policy they embraced, not for want of experience of any other (for the export was prohibited for many years,) but finding it a diſcouragement to the breed, they laid the trade open, and the ſame plan has been continued ever ſince; by this ſyſtem they are ſure that the price is as high in France as amongſt her neighbours, and conſequently that there is all the encouragement to breed which ſuch equality of price can give. The export of woollen manufacture in 1784, amounts to 24,795,800 livres, or not equal to the import of raw wool. On the general account, therefore, France does not ſupply herſelf; and the treaty of commerce having introduced many Engliſh woollen ſtuffs, ſhe is at preſent further removed from that ſupply. Conſidering the climate, ſoil, and population of the kingdom, this ſtate of her woollen trade certainly indicates a moſt groſs neglect For want of having improved the breed of her ſheep, her wools are very bad, and ſhe is obliged to import, at a heavy expence, other wools, ſome of which are by no means good; and thus her manufactures are under a heavy diſadvantage, on account of the low ſtate of agriculture. The ſteps ſhe has taken to improve her wools, by giving penſions to academicians, and ordering experiments of enquiry upon obvious points, are not the means of improvement. An Engliſh cultivator, at the head of a ſheep farm of three or four thouſand acres, as I obſerved above, would, in a few years, do more for their wools than all the academicians and philoſophers will effect in ten centuries.

BAYONNE.—Trade here is various, the chief articles are the Spaniſh commerce, the Newfoundland fiſhery, and the coaſting trade to Breſt, Nantes, Havre, Dunkirk, &c. they have an export of wine and flour, and they manufacture a good deal of table linen. They build merchant ſhips, and the king has two frigates on the ſtocks here under ſlated roofs. Of a merchantman, the workmanſhip alone amounts to about 15 livres a ton. They reckon two thouſand ſailors and fiſhermen, including the baſque men, about ſixty ſhips of different ſizes, belong to the place, eight of which are in the American trade, ſeventeen in the Newfoundland fiſhery, of from eighty to one hundred tons average, but ſome much larger; the reſt in the Spaniſh, Mediterranean, and coaſting trades. Seamen here are paid in the Newfoundland fiſhery 36 liv. a month wages, and one quintal in five of all the fiſh caught. To Dunkirk 27 liv. to Nantes 45 liv. per voyage; to the coaſt of Guinea 50 liv. per month; to Boſton and Philadelphia 50 liv. to St. Sebaſtian 24 liv. the voyage; to Bilboa 36 liv. to St. Andero 40 liv. to Colonia and Ferrol 46 liv. to Liſbon and Cadiz 30 liv. a-month, and for three months certain.

BOURDEAUX.—All the world knows that an immenſe commerce is carried on at this city; every part of it exhibits to the traveller's eye unequivocal proofs that it is great; the ſhips that lye in the river are always too numerous to count eaſily; I gueſs there are at preſent between three and four hundred, beſides ſmall craft and barges; at ſome ſeaſons they amount to one thouſand or fifteen hundred, as I was aſſured, but know not the truth of it; I rather queſtion it, as it does not ſeem abſolutely to agree with another account, which makes the number of ſhips that enter the harbour ten on an average every day; or, as aſſerted by others, three thouſand in a year. It may be ſufficient to ſay, at preſent, that here are every ſign of a great and flouriſhing trade; crouds of men all em-

ployed, buſy, and active; and the river much wider than the Thames at London, animated with ſo much commercial motion, will leave no one in doubt.

Ship-building is a conſiderable article of their trade; they have built ſixty ſhips here in one year; a ſingle builder has had eight of his own on the ſtocks at a time; at preſent they reckon the number on an average from twenty to thirty; the greater number was towards the termination of the war, a ſpeculation on the effect of peace; there are ſixty builders who are regiſtered after undergoing an examination by an officer of the royal navy; they reckon from two to three thouſand ſhip-carpenters, but including the river Garonne for many leagues; alſo fifteen hundred ſailors, including thoſe carpenters; the expence of building riſes to 5l. a ton, for the hulk, maſks, and boats; the rigging and all other articles about 4l. more; thirty-three men, officers and boys included, are eſtimated the crew for a veſſel of 400 tons, eight men for one of 100 tons, and ſo on in proportion; they are paid all by the month from 30 to 36 liv. ſome few 40 liv. carpenters 40 to 50ſ. a day, and ſome 3 liv. There are private ſhip-owners, whoſe whole trade conſiſts in the poſſeſſion of their veſſels, which they navigate on freight for the merchants; they have a calculation, that ſhips laſt one with another twelve years, which would make the number poſſeſſed by the town three hundred, built by themſelves; a number I ſhould apprehend under the truth; the Bretons and Dutch build alſo for them.

Ships of a larger burthen than ſeven hundred tons cannot come up to the town but in ſpring tides.

The export of wine alone is reckoned to amount to eighty thouſand tons, beſides which brandy muſt be an immenſe article.

HAVRE DE GRACE.—There is not only an immenſe commerce carried on here, but it is on a rapid increaſe; there is no doubt of its being the fourth town in France for trade. The harbour is a foreſt of maſts; they ſay, a 50 gun ſhip can enter, I ſuppoſe without her guns. They have ſome very large merchantmen in the Guinea trade of 5 or 600 tons, but by far their greateſt commerce is to the Weſt-India ſugar iſlands; they were once conſiderable in the fiſheries, but not at preſent. Situation muſt of neceſſity give them a great coaſting trade, for as ſhips of burthen cannot go up to Rouen, this place is the emporium for that town, for Paris, and all the navigation of the Seine, which is very great.

Sailors are paid 40 liv. a month.

There are thirty Guineamen belonging to the town, from 350 to 700 tons; one hundred and twenty Weſt-Indiamen; one hundred coaſting trade; moſt of them are built at Havre. The mere building a ſhip of 300 tons is 30,000 livres, but fitted out 60,000 livres.

The increaſe of the commerce of Havre has been very great in twenty-five years, the expreſſion uſed was, that every crown has become a louis, and not gained by rivalling other places, but an increaſe nationally, and yet they conſider themſelves as having ſuffered very conſiderably by the regulations of the Maréchal de Caſtries, in relation to the colonies; his permitting foreigners to ſerve them with ſalt proviſions, lumber, &c. opened an immenſe door to ſmuggling manufactures in, and ſugar out, which France feels ſeverely.

HONFLEUR.—The baſon full of ſhips, and as large as thoſe at Havre, I ſaw ſome of at leaſt 600 tons.

CHERBOURG.—Sailors 36 liv. to 40 liv. a month.

St. BRIEUX.—The ſhips belonging to this little port are generally of 200 tons, employed in the Newfoundland fiſheries, carrying ſixty men of all ſorts, who are paid

not

not by ſhares, but wages by the voyage: ſeamen two hundred livres, to two hundred and fifty livres, and ſome to five hundred livres.

NANTES.—The accounts I received here of the trade of this place, made the number of ſhips in the ſugar trade one hundred and twenty, which import to the amount of about thirty two millions, twenty are in the ſlave trade; theſe are by far the greateſt articles of their commerce; they have an export of corn, which is conſiderable from the provinces waſhed by the Loire, and are not without minoteries, but vaſtly inferior to thoſe of the Garonne. Wines and brandy are great articles, and manufactures even from Switzerland, particularly printed linens and cottons, in imitation of Indian, which the Swiſs make cheaper than the French fabrics of the ſame kind, yet they are brought quite acroſs France; they export ſome of the linens of Bretagne, but not at all compared with St. Maloes, which has been much longer eſtabliſhed in that buſineſs. To the American States they have no trade, or next to none. I aſked if Bourdeaux had it? No. Marſeilles? No. Havre? No. Where then is it? *Tout en Angleterre.*

The accounts they give here of the trade to the Sugar Iſlands is, that Bourdeaux has twice as much of it as Nantes, and Havre to the amount of twenty-five millions, this will make it,

		liv.		
Bourdeaux,	-	60,000,000	And the proportion of ſhips,	
Nantes,	-	30,000,000	Bourdeaux, -	240
Havre,	- -	25,000,000	Nantes, - -	120
			Havre, -	100
		115,000,000		
Marſeilles,	- -	50,000,000		460
			Marſeilles,	140
		165,000,000		
				600

But at Havre they talk of 120.

The whole commerce of theſe iſles they calculate at 500 millions liv. by which I ſuppoſe they mean exports, imports, navigation, profit, &c. &c.

The trade of Nantes is not at preſent ſo great as it was before the American war; thirty ſhips have been building here at once, but never half that number now; the decline they think has been much owing to the Mariſhal de Caſtries' regulations, admitting the North Americans into the Sugar Iſlands, by which means the navigation of much ſugar was loſt to France, and foreign fabrics introduced by the ſame channel. The 40 livres a ton given by government to all ſhips that carry ſlaves from Africa to the Sugar Iſlands, and return home with ſugars, and which I urged as a great favour and attention in government, they contended was juſt the contrary to a favour; it is not near equal to what was at the ſame time taken away; that of favouring all cargoes of ſugar in ſhips under that deſcription, with paying only half the duties, 2½ inſtead of 5 per cent. and which equalled 60 liv. per ton inſtead of 40.

A ſhip of 300 tons in the ſugar trade thirty hands, but not more than ſixteen or eighteen good ones, becauſe of the law which forces a certain proportion of new hands every voyage.

Weſt-India eſtates in general render to their owners at Nantes 10 per cent. on the capital ſo inveſted.

They aſſert, that if the Eaſt-India trade was laid open, numbers here would engage in it. There is a ſhip of 1250 tons now at Pambon, idle for want of employ.

A cir-

A circumſtance in ſhip building deſerves attention. It was remarked in converſation, that many Spaniſh ſhips laſt incomparably longer than any other; that this is owing to maſtic being laid on under the copper bottom. Monſ. Epivent, a conſiderable merchant here, has tried it and with the greateſt ſucceſs; copper bottoms all with copper bolts inſtead of iron ones.

Building a ſhip of 300 tons, 30 to 35,000 livres; ten now building.

L'ORIENT.—Every thing I ſaw in this port ſpoke the declenſion of the Indian commerce, the magazines and warehouſes of the company are immenſe, and form a ſpectacle of which I had ſeen nothing of the kind equal, but the trade is evidently dead, yet they talk of the company poſſeſſing ten ſhips from 600 to 900 tons, and they even ſay, that five have gone this year to India and China. In 1774,5,6, it was great, amounting to ſixty millions a year. What activity there is at this port at preſent, is owing to its royal dock for building ſome men of war. It is the port at which the farmers general import their American tobacco, the contract of which was for 25,000 hogſheads, but dwindled to 17,000.

MARSEILLES.—I found here as at the other great ports of France, that the commerce with North America is nothing, not to a greater amount than a million of livres a year. The great trade is that of the Levant.

I was informed here, that the great plantation of Monſ. Galifet, in St. Domingo, has 1800 negroes on it, and that each negroe in general in the iſland produces groſs 660 liv. feeding himſelf beſides.

Wages of ſeamen 33 to 40 liv. a month; in the Mediterranean 33, America 40 liv. A ſhip of 200 tons building here coſts for timber only 25,000 liv. of 300 tons 40,000 liv. of 400 tons 75,000 liv., the wood is from 50 to 70*l.* per cubical foot; fitting out afterwards for ſea, coſts nearly the ſame.

Weſt India Trade.

The following is the ſtate of the trade in 1775, as given by Monſieur l'Abbe Raynal.

Products exported to France of St. Domingo, Martinique, Guadaloupe, and Cayenne.

		Value.	Re-exported from France.	Value of re-export.
	liv.	liv.	lb.	liv.
Sugar,	166,353,834	61,149,381	104,099,866	38,703,720
Coffee,	61,991,699	29,421,099	52,058,246	23,757,464
Indigo,	2,067,498	17,573,733	1,130,638	9,610,423
Cacao,	1,562,027	1,093,419	794,275	555,992
Rocon,	352,216	220,369	153,178	95,838
Cotton,	3,407,157	11,017,892	102,011	255,127
Hides,	16,123	180,078	568	5,112
Carret,	8,912	89,120	100	1,000
Canefice,	206,916	55,752	120,759	32,604
Wood,	9,441,900	922,222	4,180,280	408,355
Sundries,		1,352,148		
Silver,		2,600,000		
		125,375,213		73,425,535
Sterling				

Ships that carried on Trade the ſame Year.

	Ships.		Ships.
Dunkerque - -	13	La Rochelle, - -	24
Le Havre, -	96	Bourdeaux, -	220
Honfleur, - -	4	Bayonne, - -	9
St. Malo, - - -	13	Marſeille, - -	71
Nantes, - - -	112		562

In 1786, the imports from theſe colonies into France were,

	liv.
St. Domingo, - -	131,481,000
Martinique, - -	23,958,000
Guadaloupe, - -	14,360,000
Cayenne, - -	919,000
Tobago, - - -	4,113,000
St. Lucie, nothing directly.	
	* 174,831,000

Of theſe,—Sugar, 174,222,000lb.—Coffee, 66,231,000lb.—Cotton, 7,595,000lb.

The navigation in 569 ſhips, of 162,311 tons, ofwhich Bourdeaux† employs 246 ſhips of 75,285 tons.

	lb.
In 1786 the import of raw ſugar was greater than in 1784, by	8,475,000
Of white ſugar, by - - - -	17,155,000
Of cotton, by - - - -	2,740,000

Cotton has been increaſing in demand by foreigners, who took in 1785, more by 1,495,000lb. than in 1784; and in 1786 more by 1,798,000lb. than in 1785.

In 1784, France ſent to Africa 72 ſhips of 15,198 tons. In 1785, the number 102 ſhips of 36,429 tons, and in 1786, ſhe employed 151 ſhips of 65,521 tons, the cargoes worth 22,748,000 liv. of which navigation Nantes poſſeſſed 42 ſhips; the cargoe conſiſted of

	liv.		liv.
Arms, - -	617,000	Cowrie-ſhells, -	1,250,000
Pitch and tar, -	82,000	Coral, -	265,000
Caſes, - - -	78,000	Cordage and ſails, -	357,000
Salt meat, &c. -	677,000	Cutlery, - -	132,000

* Total in 1784 was 139,000,000 liv. What can Monſieur Begouen, of Havre, mean by raiſing this to 230,000,000?—800 ſhips?—1200 ſhips?—25,000 ſeamen? and I do not know what other extravagances. *Precis ſur l'Importance des Colonies.* 8vo. 1790. p. 3, 5, &c. Another writer ſtates, 800 large ſhips, 500 ſmall ones, and value 240 millions! *Opinion de Monſieur Blin.* p. 7. How theſe calculations are made, I do not conceive.

† Bourdeaux I take to be a place of greater and richer trade than any provincial town in the Britiſh dominions. Our greateſt are,

	Tons.	Seamen.		Tons.	Seamen.		Tons.	Seamen.
Newcaſtle, which in 1787 poſſeſſed of ſhipping, -	105,000	5,350	Whitehaven, -	53,000	4,000	Briſtol,	33,000	4,070
			Sunderland,	53,000	3,300	Yarmouth,	32,000	-
			Whitby, -	46,000	4,200	Lynn, -	16,000	
Liverpool, -	72,000	10,000	Hull, -	46,000	-	Dublin, -	14,000	

Copper

Copper,	431,000	Handkerchiefs,	735,000
Woollen cloths,	393,000	Piaſtres,	514,000
Brandies,	1,289,000	Beads, &c.	123,000
Stuffs of all ſorts,	566,000	Rice,	257,000
Flour	186,000	French linens,	2,205,000
Iron,	446,000	Foreign ditto,	8,865,000
Oil of olives,	41,000	Bourdeaux wines,	655,000
Legumes,	415,000	Other wines,	114,000
Liqueurs,	100,000		

The returns to France in ſix ſhips of 1180 tons, brought 355,000lb. of gum Senega, 37,000lb. of elephant's teeth, both worth 1,173,000 livres.

But the ſlave trade on French bottoms did not increaſe with the increaſe of the African trade in general.

In 1784, ſlaves ſold in the iſles,	25,116
1785, ditto,	17,147
1786, ditto,	26,000

But as the produce increaſed, there ſeems reaſon to think, that foreigners partook of this trade.

Theſe in French bottoms, the total numbers muſt be much more conſiderable, as appears from the following table of St. Domingo only:

Years.	No Negroes ſold.	Price.	Years.	Coffee ſold.	Price.
		liv.		lb.	lb
1783	9,370	15,650,000	1783	44,573,000	33,429,750
1784	25,025	43,602,000	1784	52,885,000	44,951,250
1785	21,762	43,634,000	1785	57,368,000	57,368,000
1785	27,648	54,420,000	1786	52,180,000	57,398,000
1787	30,839	60,563,000	1787	70,003,000	91,003,900
1788	29,500	61,936,000	1788	68,151,000	92,003,850*

It deſerves obſervation, that while the quantity almoſt trebled in five years, the price roſe continually.

Price per lb. in 1783,	15ſ.	Price per lb. in 1786,	22ſ.
1784,	17ſ.	1787,	26ſ.
1785,	20ſ.	1788,	27ſ.

Exports from France to theſe Iſles in 1786.

To St. Domingo	44,722,000 liv.
Martinique,	12,109,000
Guadaloupe,	6,274,000
Cayenne †,	578,000
Tobago,	658,000
St. Lucie, nothing directly,	
	64,341,000

* *Mémoire Envoyé le* 18 *Juin* 1790, *au Comité des Rapports*, par M. de la Luzerne, Miniſtre & Sec. d'Etat, 4to p. 70.

† In 1777, it was 600,000 livres.

Conſiſting

Conſiſting of	livres.	Conſiſting of	livres.
Salted beef, - -	1,264,000	Muſlins, French, foreign, and Indian, - - -	789,000
Stockings and caps, -	722,000	Mercery and clinqualerie	1,028,000
Hats, &c. - - -	1,676,000	Furniture, - - -	374,000
Cordage and fails, -	2,667,000	Sundries, - - -	804,000
Silk lace, - - -	791,000	Shoes, - - - -	1,248,000
Woollen cloths, - -	602,000	Soap, - - - -	1,402,000
Stuffs of all ſorts, -	1,442,000	Tallow and candles, -	1,420,000
Brandy, - - -	467,000	French linens, - -	13,360,000
Flour, - - -	6,515,000	Foreign linens, - -	985,000
Iron, - - - -	1,410,000	Bourdeaux wines, - -	5,490,000
Cheeſe, - - -	740,000	Other wines and liquors,	1,080,000
Oil of olives, - -	1,314,000		
Linen, - - -	697,000		
Handkerchiefs, - -	1,696,000		64,342,000

Of which Bourdeaux exports to the amount of 33,761,000 livres. Foreign articles exported purſuant to the arret of Auguſt 30th, were 4,967,000 livres.

Imports from the iſles, 174,831,000 livres.—Exports to them, 64,341,000 livres.

Balance againſt France, 210,490,000.

The exports in 1786 to the Iſles were leſs than thoſe of 1785 by 11,761,000 livres.

But the exports to Senegal were greater by 12,514,000 livres.

The decreaſe was in manufactures.

Linens in 1784, 17,796,000 livres.—1786, 13,363,000 livres.

Auguſt 30, 1784, in the Miniſtry of the Maréchal de Caſtries, foreigners were permitted, under certain regulations, to trade to the French ſugar iſlands, after a ſpirited controverſy in print for and againſt the meaſure. The trade of 1786, in conſequence of this arret, was as follows:

Imports in the Iſles.

	livres.
From the United States,	13,065,000
Engliſh, -	4,550,000
Spaniards, -	2,201,000
Dutch, -	801,000
Portugueſe, -	152,000
Danes, -	68,000
Swedes, -	41,000
	20,878,000

Exports from Ditto.

	livres.
To the Americans, -	7,263,000
Engliſh, - -	1,259,000
Spaniards, -	3,189,000
Dutch, - -	2,030,000
Swedes and Danes,	391,000
	14,132,000

Navigation of this Trade.

Imports.	Ships.		Tons.	*Exports.*	Ships.		Tons.
American veſſels,	1,392	—	105,095	American, -	1,127	—	85,403
French, -	313	—	9,122	French, -	534	—	13,941
Engliſh, -	189	—	10,192	Engliſh, -	153	—	10,778
Spaniſh, -	245	—	6,471	Spaniſh, -	249	—	5,856
Dutch, Portugueſe,				Dutch, &c. -	32	—	1,821
Swedes, and Danes,	34	—	2,229				
	2,102	—	133,109		2,095	—	117,799

As the cultivation and exports from the iſles in 1786, were greater than in 1784, the demand for French manufactures ought to have been greater alſo; but this was not the caſe;

Export of French linens to the iſles in		1784,	17,796,000 liv.
		1786,	13,363,000
Aulns of French linen	——	1784,	7,700,000
		1785,	5,200,000
		1786,	6,100,000

It would have been found ſo, if the arret of Auguſt 30 had not opened the colonies to foreigners, who introduced manufactures as well as lumber and proviſions. It is a great queſtion, whether this was right policy; the argument evidently turns on one great hinge; the peculiar benefit to the mother country, from poſſeſſing colonies, is their ſupply; to ſell them whatever they demand, and to ſecure the navigation dependent. It is not, to be ſure, of ſugar and coffee that nations plant colonies; they are ſure of thoſe, and of any other commodities if they be rich enough to pay for them; a Ruſſian or a Pole, is as certain of commanding ſugar as a Frenchman or an Engliſhman; and the governments of thoſe countries may raiſe as great a revenue on the import, as the governments that poſſeſs the iſlands. The peculiar benefit, therefore, of colonies, is the *monopoly of their ſupply*. It is in vain to ſay, that permitting the coloniſts to buy what they want at the cheapeſt and the beſt hand, will enable them to raiſe ſo much more ſugar, and tend ultimately to the benefit of the mother country; ſince, let them grow as rich as poſſible, and increaſe their culture to any degree whatever, ſtill the advantage of the mother country ariſes from ſupply; and if ſhe loſes that to gain more ſugar, ſhe loſes all for which the poſſeſſion is deſirable. It would be right for every country to open her colonies to all the world on principles of liberality and freedom; and ſtill it would be better to go one ſtep farther, and have no colonies at all. The ſugar iſlands of all nations, in the Weſt Indies, including the great iſland of Cuba, are conſiderable enough to form an independent free nation; and it wants not many arguments to ſhew, that the exiſtence of ſuch an one would be far more beneficial to the Engliſh, French, and Spaniards, than the poſſeſſion of thoſe iſlands as colonies. To return, however, to the arret of Auguſt 30, there is reaſon to believe, that the policy which induced the Marſchal de Caſtries to alter the exiſting laws relating to foreigners was queſtionable, and attended with evils, in proportion to the extent of the trade that took place in conſequence.

The reſult of the French ſugar trade reſembles nearly that which England carries on with her ſugar colonies, namely, an immenſe balance againſt her. We have writers who tell us, that this trade ought to be judged by a method the reverſe of every other, the merit of it depending not on the exports, but on the imports: I have met with the ſame idea in France; and as it is an object of very great conſequence in the national œconomy, it may be worth remarking,—1, That the advantages reſulting from commerce, are the encouragement of the national induſtry, whether in agriculture or manufactures; and it is unqueſtionably the exports which give this encouragement, and not the imports of a trade, unleſs they are the raw materials of future labour. 2. The real wealth of all trade conſiſts in the conſumption of the commodities that are the object of ſuch trade; and if a nation be rich enough to conſume great quantities of ſugar and coffee, ſhe has undoubtedly the power of giving activity to a certain quantum of her own induſtry, in conſequence of the commerce which ſuch conſumption occaſions, whether the ſugar be the product of her own colonies, or thoſe of any other power.

3, The

3, The taxes levied on Weſt-Indian commodities are no motive whatever for eſteeming the poſſeſſion of ſuch colonies beneficial, ſince it is the conſumption that pays the tax, and not the poſſeſſion of the land that produces the commodity. 4, The monopoly of navigation is valuable no farther than as it implies the manufacture of ſhip-building and fitting out; the poſſeſſion of many ſailors, as inſtruments of future wars, ought to be eſteemed in the ſame light as great Ruſſian or Pruſſian armies; that is to ſay, as the means of ambition; and as the inſtruments of wide-extended miſery *. 5, The poſſeſſion of ſugar iſlands is the inveſtment of immenſe capitals in the agriculture of America, inſtead of the agriculture of France: the people of that kingdom ſtarve periodically for want of bread, becauſe the capitals which ſhould raiſe wheat in France are employed on ſugar in St. Domingo. Whatever advantage the advocates for colonies may be ſuppoſed to ſee in ſuch poſſeſſions, they are bound to ſhew, that the inveſtment of equal capitals in the agriculture of France would not be productive of equal and even of infinitely ſuperior benefits. 6, It is ſhewn, in another place, that the agriculture of France is, in the capital employed, 450,000,000l. inferior to that of England; can any madneſs, therefore, be greater than the inveſtment of capitals in American agriculture for the ſake of a trade, the balance of which is above 100,000,000 livres againſt the mother country, while nothing but poverty is found in the fields that ought to feed Frenchmen? 7, If it be ſaid, that the re-exportation of Weſt-Indian commodities is immenſe, and greater even than the balance, I reply, in the firſt place, that Monſ. Necker gives us reaſon to believe, that this re-exportation is greatly exaggerated; but granting it to riſe to any amount, France bought thoſe commodities before ſhe ſold them, and bought them with hard caſh to the ſum of the balance againſt her; firſt loſing by her tranſactions with America the ſums ſhe afterwards gains by exporting to the north. The benefit of ſuch a trade is nothing more than the profit on the exchange and tranſport. But in the employment of capital, the loſs is great. In all common trades, ſuch as thoſe ſhe carries on with the Levant, or with Spain, ſhe has the common profit of the commerce, without inveſting any capitals in producing the commodities ſhe buys; but in the Weſt-Indian commerce ſhe inveſts double capitals, to produce the goods ſhe ſells, and equally to produce the goods ſhe buys. 8, If it ſhould be ſaid that St. Domingo is not to be conſidered as a foreign country, with which France trades, nor a colony, but as a part of itſelf; and that the balance between them is like the balance between them and the provinces, then I reply, that it is ſo ill ſituated a province, that to encourage a deviation of capitals from all other provinces to be inveſted in this, is little ſhort of madneſs; *firſt*, from diſtance and cultivation by ſlaves, it is inſecure. If it eſcapes the attacks of European foes, the natural progreſs of events will throw it into the hands of the United States. Secondly, it demands a great navy to defend it; and conſequently taxes on all the other provinces, to the amount of two millions ſterling per annum. Of what expence to Languedoc, is the poſſeſſion of Bretagne? Its proportion of the common defence. Is this ſo with St. Domingo? France pays a marine of two millions, but St. Domingo does not pay one ſhilling to defend France, or even to defend itſelf. In common ſenſe, the poſſeſſion of ſuch a province ought to be deemed a principle of poverty and weakneſs, rather than of riches and of ſtrength. 9, I have

* Prejudices of the deepeſt root are to be eradicated in England before men will be brought to admit this obvious truth Thoſe prejudices took their riſe from a daſtardly fear of being conquered by France, which government has taken every art to propagate ever ſince the revolution, the better to promote its own plans of expence, profuſion, and public debts. Portugal, Sardinia the little Italian and German States, Sweden, and Denmark, &c. have been able, deficient as they are in government and in people, to defend themſelves; but the Britiſh iſles, with fifteen millions of people, are to be conquered!!

converſed on this ſubject at Havre, Nantes, Bourdeaux, and Marſeilles; and I have not yet met with a man able to give me one other ſolid reaſon for ſuch a ſyſtem than the fact that agriculture in the Weſt Indies is profitable, and not ſo in France. The ſame argument is uſed, and with equal truth, in England. I admit the fact; and it recurs at once to the pernicious doctrine of laying ſuch taxes, reſtrictions, prohibitions, and monopolies on land at home, that men inclined to purſue agriculture as a trade muſt go with their capitals into another hemiſphere, in order to reap an adequate profit. But change this wretched and abominable policy; remove every tax, even to the ſhadow of one on land; throw all on conſumption; proclaim a FREE CORN TRADE; give every man a power of incloſure.—In other words give in the Bourbonnois what you have given in Domingo, and then ſee if French corn and wool will not return greater profits than American ſugar and coffee. The poſſeſſion of ſugar iſlands, ſo rich and proſperous as thoſe of France and England, dazzles the underſtandings of mankind, who are apt to look only on one ſide, where they ſee navigation, re-export, commercial profit, and a great circulation: they do not reverſe the medal, and ſee, in the miſchievous deviation of capitals from home, agriculture languiſhing, canals ſtanding ſtill, and roads impaſſable. They do not balance the culture of Martinique by the *landes* of Bourdeaux; the tillage of St. Domingo by the deſerts of Bretagne; or the wealth of Guadaloupe by the miſery of Sologne. If you purchaſe the riches that flow from America by the poverty and wretchedneſs of whole provinces, are you blind enough to think the account a beneficial one? I have uſed no arguments againſt the French ſugar iſlands that are not applicable likewiſe to the Engliſh: I hold them to be equal obſtacles to the proſperity of both kingdoms; and, as far as experiment of the loſs of North America goes, I am juſtified by that vaſt and important fact—that a country may loſe the monopoly of a diſtant empire, and riſe from the imaginary loſs more rich, more powerful, and more proſperous!

If theſe principles be juſt, and that they are ſo is confirmed by an immenſe range of facts, what are we to think of a politician who declares, that the loſs of Bengal, or the Dutch withdrawing their money from our funds, would ruin England *?

Export of the Products of French Agriculture to the Weſt-Indies, in 1787.

	livres.
Wine, brandy, &c.	6,332,000
Edibles,	769,000
Salted meats,	971,000
Flour,	6,944,000
Legumes,	300,000
Candles,	500,000
Woods, cordage, &c.	2,869,000
Raw materials of manufactures,	4,000,000
Furniture, cloaths, &c. the raw materials of,	2,000,000
Raw materials of the exports to Africa,	2,000,000
Exports of the ſoil,	26,685,000

	livres.	
Manufactured goods of national workmanſhip,	20,549,000	
Materials, as above,	4,000,000	
		16,549,000

* *Conſid. ſur les Richeſſes et le Luxe.* 8vo. 1787. p. 492. In the ſame ſpirit is the opinion, that England, before the laſt war, had attained the maximum of her proſperity, p. 483.

Furniture,

	livres.	
Furniture, cloaths, &c. ——	10,136,000	
Materials as above, —— ——	2,000,000	
	——	8,136,000
Exports to Africa, —— ——	17,000,000	
Materials, as above, —— ——	2,000,000	
	——	15,000,000
Sundry articles, —— ——	——	7,341,000
		73,711,000

Of which 49,947,000 livres were French products and manufactures.

Fiſheries.

No trade is ſo beneficial as that of fiſhing; none in which a given capital makes ſuch large returns; nor any ſo favourable to thoſe ideal advantages, which are ſuppoſed to flow from a great navigation. The French were always very aſſiduous in puſhing the progreſs of their fiſheries. Suppoſing them right in the principles of thoſe efforts they have made to become powerful at ſea, which, however, is exceedingly queſtionable, they have certainly acted wiſely in endeavouring to extend theſe nurſeries of maritime power.

		Ships	Tons.
Newfoundland and Iſland fiſheries,	1784, —	328 —	36,342
	1785, —	450 —	48,031
	1786, —	453 —	51,143

Returns of cod, mackarel, and herring in	1784, were	15,474,000lb.
	1785, —	18,154,000
	1786, —	19,100,000
Quantity of Newfoundland dried cod,	1784, —	230,516 quintaux.
	1785, —	241,850
	1786, —	272,398
Cod exported to Italy and Spain, -	1784, —	1,835,000lb.
	1785, —	2,410,000
	1786, —	4,117,000

This great increaſe attributed to the arret of Sept. 1785, which granted bounties on the export of cod of 5 livres, and of 10 livres per quintal.

Moſt of the national fiſheries are flouriſhing; they employed in 1786,

	Ships.	Tons,		Ships.	Tons.
Herrings, &c. -	928 —	——	Iriſh from Dunkerque,	62 —	3,742
Newfoundland,	391 —	47,399	Whale, - - -	4 —	970

Dieppe does moſt in the fiſhing trade, poſſeſſing 556 ſhips, of 21,531 tons.

The value of the merchandize embarked in 1786, on board the fiſhing veſſels, 3,734,000 livres, and the returns the ſame year were,

Herrings and mackarel, &c. —	5,589,000 liv.
Cod, — — — —	13,636,000
Whales, — — — —	53,000
Sundries, — — —	200,000
	19,578,000

Trade

Trade with the United States.

The commerce which France carries on with the North Americans, is all the reward ſhe reaps from having expended probably fifty millions ſterling to ſecure their freedom. Viſions of the depreſſion of the Britiſh power, played indeed in the imaginations of the cabinet of Verſailles; but peace was ſcarcely returned before thoſe airy hopes entirely vaniſhed; every hour proved, that England, by the emancipation of her colonies, was ſo far from loſing any thing, that ſhe had gained immenſely: the detail of this trade will prove, that France was as much deceived in one expectation as in the other.

	livres.	
On an average of three years preceding the French revolution, the imports from America were		9,600,000
Ditto into the French ſugar iſlands,		11,100,000
		20,700,000
Exports of France to North America,	1,800,000	
Ditto from the iſles,	6,400,000	
		8,200,000
Balance,		12,500,000

Ces républicains, ſays Monſ. Arnould*, *ſe procurent maintenant ſur nous, une balance en argent de 7 à 8 millions, avec laquelle ils ſoudoyent l'induſtrie Angloiſe. Voila donc pour la France le nec plus ultra d'un commerce, dont l'eſpoir au pû contribuer à faire ſacrifier quelques centaines de millions et pluſieurs générations d'hommes!*

Trade to Ruſſia.

It is commonly ſuppoſed in England, that the trade which France carries on with Ruſſia is very beneficial, in the amount of the balance; and there are French writers alſo who give the ſame repreſentation; the part in French navigation will appear in the following ſtatement:

	livres.
Imports from Ruſſia to France in 1788,	6,871,900
From France to Ruſſia,	6,108,500
Balance againſt France,	763,400

This, it is to be noted, concerns French bottoms only; the greateſt part of the commerce being carried on in Engliſh and Dutch bottoms †.

* *De la Balance du Commerce*. 1791. tom. i. p. 234.

† The navigation of the Baltic will appear from the following liſt of ſhips which paſſed the Sound:

	1784	1785		1784	1785
Engliſh,	3172	2535	Courlanders,	16	25
Daniſh,	1691	1789	Dantzickers,	190	161
Swediſh,	2170	2116	Bremeners,	259	176
Pruſſians,	1429	1358	Hamburghers,	75	61
Dutch,	1366	1571	Lubeckers,	63	79
Imperial,	167	66	Roſtockers,	53	110
Portugueſe,	38	28	Oldemburghers,	8	0
Spaniſh,	19	15	French,	25	20
American,	13	20			
Venetian,	5	4		10,897	10,226
Ruſſian,	138	114			

Cormeré Recherches ſur les Finances, tom. i. p. 385.

The whole commerce of France with the Baltic is ſaid to employ ſix or ſeven hundred ſhips of two hundreds tons*.

Trade to India.

At the period of the Revolution the ſtate of the trade to India was as follows:

Imports from India on a medium of 1785, 1786, and 1787,	34,700,000
In 1788,	33,300,000

Merchandize.

	livres.
Indian manufactures,	26,600,000
Spices, tea and coffee of Moka,	6,000,000
Silk, cotton, ivory, woods,	1,150,000
China, &c. &c.	493,000
Drugs,	367,000
	34,610,000
Exports from France at ſame time,	17,400,000 †
Exports to the iſles of France and Bourbon on an average of the ſame three years,	4,600,000
Imports,	2,700,000

By the regulation of May 1787, confirmed by the National Aſſembly, Port Louis, in the Iſle of France is made free to foreign ſhips, by which means it is expected that that port will become an entrepôt for the Indian trade.

Navigation.

There is not much reaſon for modern readers to be ſolicitous concerning the commerce or navigation of any country; we may reſt aſſured, that the trading ſpirit which has ſeized all nations, will make the governments anxious to promote, as much as poſſible, whatever intereſts their commerce, though their agriculture is, at the ſame moment, in the loweſt ſtate of poverty and neglect. All the Engliſh authorities I have met with, reſpecting the navigation of France, are of a very old date; perſons who are curious in theſe ſpeculations, will probably be pleaſed with the following account:

Ships in France cleared outwards in 1788.

	Ships.	Tons.
For the Levant and coaſt of Barbary,	366	45,285
Whale fiſhery,	14	3,232
Herring fiſhery,	330	9,804
Mackarel fiſhery,	437	4,754
Sardinia,	1,441	4,289
Freſh both in the ocean and Mediterranean,	2,668	11,596
Cod,	432	45,446
All parts of Europe and the American States,	2,038	128,736
Weſt Indies,	677	190,753
Senegal and Guinea,	105	35,227
Eaſt-Indies, China, Iſles of France and Bourbon, both by company and otherways,	86	37,157
	8,588	516,279

* *Cormeré Recherches ſur les Finances*, tom. i. p. 362. † *De la Balance du Commerce*, tom. i. p. 282.

N. B. The total navigation in Europe and America, either by French or foreign ſhips, amounts to 9,445 ſhips and 556,152 tons.

Monſ. Arnould in his treatiſe *De la Balance du Commerce*, has given an account of the French navigation for the year 1787, which does not well accord with this. I inſert an extract from it here that the reader may have the opportunity of comparing them.

Table of the Tonnage, French and foreign, employed in the Commerce of France in 1787.

	French. tons.	Foreign. tons.
Europe, the Levant, coaſt of Barbary, and United States,	161,582	532,687
India and China,	6,657	
Coaſt of Guinea, ſlave trade, Iſles of France and Bourbon,	45,124	
Sugar Iſlands,	164,081	
Whale fiſhery,	3,720	
Cod fiſhery,	53,800	
Herring ditto,	6,602	
Mackarel ditto,	5,166	
Anchovie ditto,	3,062	
Sundry fiſheries,	12 320	
Coaſting trade,	1,004,749	6,123
	1,459,998	538,810
Total,	2,007,661	

The immenſe increaſe of the navigation of England, appears by comparing this account with that firſt of commercial writers Lord Sheffield, for the average of three years preceding 1773.

	Ships.	Tons.	Men.
Foreign trade,	2719	335,583	30,771
Coaſting trade,	3458	219,756	15,244
Fiſhing veſſels,	1441	25,339	6,774
Totals,	7618	589,978	52,789

This is excluſive of Scotland *.

Monſ. Arnould, however, aſſures us, that at the period of the Revolution, France poſſeſſed 1000 ſhips (I do not love ſuch round numbers, which always betray inaccuracy,) of 250 tons, employed in long voyages, and in the cod and whale fiſheries †. The whole maritime commerce of exportation employing at the ſame time 580,000 tons of all nations; of which 152,000 tons were French.

* Obſerv. on the Commerce of the American States, by John Lord Sheffield, 6th edit. p. 160.

† *Balance du Commerce*, tom. ii. p. 23. 8vo. 1791.

Cabotage (coaſting Trade) the ſame Year.

	Ships.	Tons
French ſhips,	22,360	997,666
Foreign ditto,	60	2,742
	22,420	1,000,408

N. B. There is no diſtinction between ſhip and voyage; if a ſhip clears out five times a-year, ſhe is regiſtered every voyage. The article *Sardinia*, which appears ſo large in ſhips, and ſo ſmall in tonnage, muſt, I ſhould ſuppoſe, be for a fiſhery on the coaſts of that iſland.

From the tonnage of the ſhips, as they are called, in the fiſheries, it appears, that they are little more than boats: thoſe in the herring fiſhery, are about 30 tons each—and in the mackarel, little more than 10 tons.

The navigation of England for a year, ending the 30th September, 1787, was,

	Ships.	Tonnage.	Men.
Engliſh,	8,711	954,729	84,532
Scotch,	1,700	133,034	13,443
Eaſt Indiamen,	54	43,629	5,400
Ireland,	——	60,000	——
	10,465	1,191,392	103,375

Without including the Weſt-India trade, or that of the North American colonies, or the African or Aſian, the Indiamen excepted.

Progreſs of the French Commerce

	Imports, liv.	Exports. liv.
1716 to 1720, peace, average per annum,	65,079,000	106,216,000
1721 to 1732, peace,	80,198,000	116,765,000
1733 to 1735, war,	76,600,000	124,465,000
1736 to 1739, peace,	102,035,000	143,441,000
1740 to 1748, war,	112,805,000	192,334,000
1749 to 1755, peace,	155,555,000	257,205,000
1756 to 1763, war,	133,778,000	210,899,000
1764 to 1776, peace,	165,161,000	309,245,000
1777 to 1783, war,	207,536,000	259,782,000
1784 to 1788, peace,	301,727,000	354,423,000

It will not be uſeleſs to contraſt this with the trade of England:

* Monſ. Arnould, of the *Bureau de la Balance du Commerce* at Paris, aſſerts, I know not on what authority, that the Engliſh navigation in 1789 amounted to 2,000,000 tons.

	Imports. L.		Exports. L.		Imports. L.		Exports. L.
1717,	6,346,768	—	9,147,700	1771,	12,821,995	—	17,161,116
1725,	7,094,708	—	11,352,480	1783,	13,122,235	—	15,450,778
1735,	8,160,184	—	13,544,144	1785,	16,279,419	—	16,770,228
1738,	7,438,960	—	12,289,495	1787,	17,804 000	—	16,869,000
1743,	7,802,353	—	14,623,653	1788,	18,027,000	—	17,471,000
1753,	8,625,029	—	14,264,614	1789,	17,821,000	—	19,340,000
1763,	11,665,036	—	16,160,181	1790,	19,130,000	—	20,120,000

As the balance, or ideas of a balance, are a good deal viſionary, we ſhall find, by adding the two columns together, that the trade of England has ſuffered no decline, but on the contrary, is greater than ever; it deſerves attention, however, that the progreſs of it has not been nearly ſo rapid as that of France, whoſe commerce, in the laſt period, is 3½ times as great as it was in the firſt; whereas ours has in the ſame period not much more than doubled. The French trade has almoſt doubled ſince the peace of 1763, but ours has increaſed not near ſo much. Now it is obſervable, that the improvements, which in their aggregate mark national proſperity, have, in this period of twenty-nine years, been abundantly more active in England than in France, which affords a pretty ſtrong proof that thoſe improvements, and that proſperity, depend on ſomething elſe than foreign commerce; and as the force of this argument is drawn directly from facts, and not at all from theory or opinion, it ought to check that blind rage for commerce, which has done more miſchief to Europe, perhaps, than all other evils taken together. We find, that trade has made an immenſe progreſs in France; and it is elſewhere ſhewn, that agriculture has made little or none; on the contrary, agriculture has experienced a great increaſe in England, though very ſeldom favoured by government, but commerce an inferior one; unite this with the vaſt ſuperiority of the latter in national proſperity, and ſurely the leſſon afforded by ſuch facts needs no comment.

Of the Premiums for the Encouragement of Commerce in France.

The French adminiſtration has long been infected with that commercial ſpirit which is at preſent the diſgrace of all the cabinets of Europe A totally falſe eſtimate that has been made of England, has been the origin of it, and the effect has been an almoſt univerſal neglect of agriculture.

The premiums paid in France for encouraging their commerce are the following, and the amount for a year, ending the 1ſt of May 1789, is added:

	liv.
Expence of tranſporting dry cod to the American iſles, and to various foreign countries, at the rate of 5, 10, and 12 livres per quintal, by the arret of 18th Sept. 1785, and 11th Feb. 1787, — —	547,000
Bounty payable on the departure of ſhips for the coaſt of Guinea, and for Mozambique, at the rate of 40 liv. per ton, by the arrets of 26th Oct. 1784, &c. — — —	1,950,000
Bounty on the negroes tranſported into the Colonies at the rate of 60 to 100 liv. a-head, by the arret of 26th Oct. 1781, and of 160 liv. and 200 liv. by that of the 10th Sept. 1786, — —	865,000

Bounty

Bounty for encouraging the navigation in the North Sea, at the rate of 3, 4, 6, and 10 liv. per ton, by the arret of 25th Sept. —	4,000
Bounty on the export of refined ſugar 4 liv. the quintal, by the arret of 26th May 1786, — — — —	108,000
Encouragements given to ſeventeen manufactures, 39,000 } To others, — — — 61,000 }	100,000
Bounty of 4 liv. per 1000lb. of caſt iron, granted to the foundries of Mont Cenis in Bourgogne, — — —	18,000
Bounty granted to the people of Nantuket eſtabliſhed at Dunkerque for the whale fiſhery, at 50 liv. per ton of oil, — —	170,000
To the coal mines of the kingdom, — — —	100,000
	*3,862,000

I hope it does not at this time of day want much explanation, or many obſervations on this contemptible catalogue of the commercial merit of the old government of France. The fiſheries and ſugar iſlands, if we are to believe the French writers, are the moſt valuable and the moſt important articles of the French commerce.—How can this be, if they want theſe paltry bounties to aſſiſt them? St. Domingo is ſaid in France to be the richeſt and moſt valuable colony there is in the world; I believe the fact; but if we were to conſider only a premium on ſupplying it with ſlaves, we ſhould be apt to imagine it a poor ſickly ſettlement, ſcarcely able to ſupport itſelf. If cultivation is vigorous there, it demands ſlaves without any bounty; if it is not vigorous, no bounty will make it ſo; but the object, real or pretended, of bounties, is to induce people to inveſt capitals in certain employments, which they would not ſo inveſt without ſuch bounties. This is to profeſs giving bounties to the inveſtment of capitals in American agriculture, rather than in that of France; the tendency is clear; but in this age it ſurely becomes a queſtion, whether the *landes* of Bretagne and Anjou would not be as deſerving of ſuch a bounty as the foreſts of Hiſpaniola?

To remark on all theſe premiums is unneceſſary; it is ſufficient to obſerve, that all, except that for coal, is abſurd, and that that is ſo given as to be uſeleſs.

Of the Treaty of Commerce between Great Britain and France.

This celebrated meaſure was ſo thoroughly debated in England, that I ſhall not go again over ground trodden almoſt bare; but, with attention chiefly to brevity, give ſome French authorities upon it, which are but little known in England.

There are in moſt of the great commercial towns in France, ſocieties of merchants and manufacturers, known under the title of *Chambre du Commerce*; theſe gentlemen aſſociate for the purpoſe of giving information to the miniſtry on any commercial queſtion upon which their opinion is demanded, and for other purpoſes that concern the trading intereſts of their reſpective towns. The *Chambre du Commerce de Normandie*, on occaſion of this treaty, printed and diſperſed (it was not ſold) a pamphlet entitled, *Obſervations ſur le Traité de Commerce entre la France & l'Angleterre.*

In this work they inform their readers, that in order to draw a fair compariſon between the advantages and diſadvantages of the two kingdoms in manufactures, they

* *Compte Général*, 1789 p. 186.

had deputed two merchants of Rouen, ſufficiently underſtanding in the fabrics of Normandy, and who ſpoke Engliſh, to take a journey to the manufacturing parts of England, in order to acquire authentic intelligence, and upon their return they were deſired to make a ſimilar tour through the manufactures of Normandy, that they might poſſeſs themſelves of the knowledge requiſite for a fair compariſon; and from their reports, as well as from other materials, the *Chambre du Commerce* ſpeak in their obſervations:

"But while we are embarking in this undertaking, the alarm of our commerce increaſes every day, and becomes a real evil by a moſt active ſale of every article of Engliſh manufacture, which can enter into competition with our fabrics. There is not an article of habitual conſumption with which England has not filled all the magazines of France, and particularly thoſe of this province, and in the greateſt number of theſe articles the Engliſh have a victorious preponderance. It is afflicting to ſee the manufacturers who ſuffer by this rivalſhip, already diminiſhing ſucceſſively the number of their workmen, and important fabrics yielding in another manner to the ſame ſcourge, by Engliſh goods being ſubſtituted in the ſale for French ones; receiving a preparation agreeable to the conſumption, named, marked, and ſold as French, to the infinite prejudice of the national induſtry.

"The Chamber is apprehenſive of the immediate effect of the introduction of Engliſh cottons, whereof the perfection of the preparation, the merit of the ſpinning, united with their cheapneſs, has already procured an immenſe ſale. A coup d'œil upon the folio 5 of the table of patterns of Mancheſter, and the Fauxbourg St. Sever, at Rouen, will demonſtrate the diſadvantages of the latter.

"Our potteries cannot eſcape a notable prejudice; the low price of coals in England enables the Engliſh to underſell us in theſe articles 25 per cent.; conſiderable cargoes have already arrived at Rouen.

"The 36,000 dozen pairs of ſtockings and caps of cotton, made in the generality, are the produce of 1200 looms. Within three months it is calculated, that at Rouen alone, more than one hundred have ſtopped. The merchants have made proviſion of Engliſh goods, for more than 30,000 dozen pairs of ſtockings and caps have already been imported.

"Mancheſter is the Rouen of England, the immenſe fabrication of cotton ſtuffs, the induſtry of the manufacturers, their activity, the reſource of their mechanical inventions, enable them to underſell us from 10 to 15 per cent. Every circumſtance of the fabric proves the riches of the maſter manufacturers, and the ſolicitude of government for ſupporting and favouring their induſtry.

"In general their ſtuffs and their linens are finer, of a more equal ſpinning, and more beautiful than ours; nevertheleſs they are at a lower price, which proves the importance of their machines for carding and ſpinning the cotton in a perfect and expeditious manner. By the aid of theſe united means, they flatter themſelves at Mancheſter with equalling the muſlins of India, yet the higheſt price of thoſe hitherto wrought does not exceed 8s. a yard, but the fabric is ſo conſiderable, that they are not afraid to value it at 500,000 liv. a week; however one may be permitted to doubt of this, one muſt be amazed (*effrayé*) at the immenſe ſale which the Engliſh have procured for this article, and the more ſo, as we have been aſſured, that the magazines of the company contained, within a few months, to the value of 80,000,000 livres, in India muſlins.

"We do not know that the Engliſh have in their fabrics of linen any other inventions for ſimplifying the labour than the flying ſhuttle and the flax-mill, becauſe the

fibres of flax are not adapted to the application of machines for ſpinning and carding; we are, however, aſſured that they have found means, by water-mills, to weave many pieces of linen at the ſame time and in the ſame loom.

"The price of coals in the preparation of cotton is of ſome importance. The inhabitants of Mancheſter pay for coal only 9s. a ton, of 2000lb. (French) but at Rouen it is 47 to 50 liv. the ton.

"The Engliſh are forced to render juſtice to the cloths of Louviers, as well as to thoſe of Abbeville and Sedan. They cannot diſſemble that they think them more ſoft than their own, and that the colours are more lively and more ſeducing, but we cannot hope to ſell them in England. The Engliſh, whether through a ſpirit of patriotiſm, or by the real agreement of their kind of fabric to the nature of their climate, prefer their cloths extremely fulled, and of colours very *ſombre*, becauſe the ſmoak of their coal fires, combined with the humidity of the atmoſphere, depoſiting a greaſy duſt, might eaſily affect our colours ſo lively, but of little ſolidity; however it may be, the competition at preſent of the Engliſh in France cannot be very hurtful to the manufactures of Louviers, Sedan, and Abbeville; but as the Engliſh import as well as we the wools of Spain, they may certainly attain the beauty of the cloths of Louviers.

"The fabrics of Elbœuf, however proſperous, have not the ſame reſources as the Engliſh ones of the ſame kind, excellent national wools proper for their fabric at a low price. We calculate that the ordinary cloths of five-fourths breadth, and 15 or 16 livres price per auln, can ſcarcely withſtand the competition of the cloths of Leeds, called Briſtols, which coſt only 11 liv. the auln.

"The cloths, ratines, eſpagnolettes, flannels, and blankets of Darnetal, have moſt of them a ſuperiority over many ſimilar Engliſh fabrics; but the low price of theſe laſt will render their competition fatal. We cannot too often recur to the advantages which the Engliſh poſſeſs over all the woollens of France, which are wrought like thoſe of Darnetal, with the wools of France. The high price of our wool, and its inferiority in quality * to that of England is ſuch, that this inequality alone ought to have induced the rejection of the treaty of commerce on the terms upon which it has paſſed. The manufacturers of Darnetal, Rouen, Beauvais, Amiens, Lille, and Rheims, may find it their intereſt to import Engliſh fabrics before they have received the laſt hand, which they can give cheaper than in England, and thus appropriate to themſelves a profit in the cheapneſs and beauty of the Engliſh wools, by underſelling the ſimilar fabrics entirely French.

"The Engliſh ratines cannot ſupport the parallel with thoſe of Andely, where alſo good kerſeymeres are made in imitation of the Engliſh, but quite unable to ſtand againſt them. Before the treaty the Engliſh kerſeymeres came contraband to France, and were therefore dear, but now all the magazines of the kingdom regorge with them, for at the ſame time that they are cheaper, they are in quality more perfect, of a more equal grain, and leſs ſubject to greaſe.

"The manufacture of cloths at Vire has fallen from 26,000 pieces per annum to 8000. During the war they had an export to North America, but on the peace, the cloths of Leeds preſented themſelves with a victorious ſuperiority, and will hold it till we have perfected the breed of our ſheep, and obtained fleeces of a greater length and weight.

* The manufacturers of France poſſeſs no ſuch iniquitous monopoly againſt the farmer, as makes the diſgrace and miſchief of Engliſh agriculture.

"In

"In regard to the ſtuffs of wool, called ſerges, molletons, flannels, londrins, ſatins, burats, camelots, baracans, calmandes, étamines, kerſeymeres, ſagathis, &c. which were furniſhed both to France and foreigners by Darnetal, Aumale, Beauvais, Amiens, Lille, Rheims, and le Mans, they muſt ſink under the competition of the ſimilar manufactures of England. During the late war the Spaniards gave conſiderable employment in theſe articles to the manufactures of Amiens, Lille, and Aumale. On the firſt report of a peace, they not only ſuſpended their commiſſions, but even gave counter orders for what were already beſpoke, the Engliſh having offered the ſame ſtuffs 20 per cent. cheaper than we could afford them.

"We may obſerve in fine, upon the conditions of the treaty, that the Engliſh have contrived to leave exceſſive duties upon all the articles, the trade of which would have offered advantages for France, and to prohibit the moſt intereſting, to admit thoſe whereof the reciprocity would be wholly to their own advantage; and to favour in a manner almoſt excluſively, in their importations, ſuch as are made in Engliſh bottoms; circumſtances which, united with the famous act of navigation, explain, in a great meaſure the diſproportion which exiſts between the number of Engliſh and French veſſels in the commerce of the two nations ſince the treaty, which is at leaſt twenty to one.

"The opinion we develope upon this treaty is general, and founded on a ſimple reflection, that France furniſhes twenty-four millions of conſumers againſt eight millions which England offers in return *.

"The ſituation of France cannot have been conſidered in the preſent circumſtances; at the ſame time that the conſumption of its inhabitants, firſt, that natural and neceſſary aliment of national induſtry becomes a tribute to England, who has carried her fabrics to the higheſt degree of perfection; the French manufacturers and workmen, diſcouraged without labour, and without bread, may offer an eaſy conqueſt to Spain, who, more enlightened at preſent upon the real means of increaſing her proſperity and her glory, developes with energy the deſire of augmenting her population, of extending and perfecting her agriculture, and of acquiring the induſtry that ſhall ſuffice for her wants, and exclude as much as ſhall be poſſible from her markets objects of foreign fabrication. We are aſſured that the workmen in the ſouthern provinces paſs ſucceſſively into the different manufactures which are eſtabliſhed; an emigration, which cannot but increaſe by the effects of the treaty of commerce with England."

The Chamber of Commerce in the ſame memoir declare, that the Engliſh had not augmented their conſumption of French wines in conſequence of the treaty. And they dwell repeatedly on the ſuperior wealth of the Engliſh manufacturers to that of the French ones, the influence of which, in the competition of every fabric, they feel deciſively.

The French miniſtry, the Archbiſhop of Sens at their head, to remove the impreſſion which they feared would follow the preceding memorial of the merchants and manufacturers of Normandy, employed the celebrated *œconomiſte* Monſ. du Pont, editor of the *Ephemerides du Citoyen*, a periodical work, printed 1767—1770, and ſince elected for Nemours into the National Aſſembly, to anſwer it, which he did in detail, and with ability: the following extracts will ſhew the arguments in favour of the treaty.

——"Relative to the wine trade, your information has not been exact. I am certain that it has been conſiderably augmented. The difference between the duties

* It is not a trifling error in the Chamber to ſtate eight millions inſtead of fifteen, the fact.

in

in England upon the wines of Portugal and France was 34*s.* of our money the bottle; it is at preſent but 5*s.* 8 den. in ſpite of the proportional diminution made upon the wines of Portugal, an approximation of which muſt be very favourable to us. Authentic accounts of the cuſtom-houſe at London have been ſent to the department of foreign affairs, ſtating the quantity of French wines imported into that ſingle city, and it riſes from the month of May to that of December of the laſt year (1787) to 6000 tons of four bariques each. In preceding years, in the ſame ſpace of time, the legal importation has amounted only to 400 tons, and the contraband import was eſtimated at about an equality. The augmentation, therefore, for the city of London, is at leaſt 5000 tons, or 20,000 bariques, which, at 1200 livres amount to 6,000,000 livres. The accounts of the balance of commerce for nine years preceding the laſt war mark 1500 tons as the mean export of our wines to England, Scotland, and Ireland. In 1784, that export did not exced 2400 tons. The city of London has therefore imported in the eight laſt months of 1787 four times more than the three kingdoms formerly imported in the courſe of a whole year.

"The ſale of vinegars, brandy, oil, ſoap, dried fruits, preſerves, cambric, linens, and millinery, has much augmented. In particular, cambric and linens have doubled.

"But this is no reaſon why the miniſtry ſhould not, on one hand, exert themſelves with all activity to oblige the Engliſh to adhere to the terms of the treaty (which they have deranged by their tariffs and regulations of their cuſtoms); and, on the other, to favour the national induſtry, particularly that of the provinces of Picardy, Normandy, and Champagne, for whom, ſince the treaty, the competition of the Engliſh has certainly been very miſchievous (*très fâcheuſe*).

"There are five branches of induſtry in which the Engliſh have over us at preſent in ſome reſpects an advantage more or leſs ſolid; in cotton ſtuffs, in ſmall woollens, in pottery, in ſteel, and in leather.

"In regard to cotton, Monſ. Barneville is in poſſeſſion of a machine, invented by his uncle, which ſpins thread of a degree of fineneſs till now unknown; even to 300,000 aulns of thread from a pound of cotton. The fineſt muſlins of Aſia are made with threads of 140,000 aulns to the pound. The government, after three years conſideration, has at laſt determined on the report of M. Deſmareſt to purchaſe this machine, and to diſtribute many of them among our manufactures.

"It is inconceivable that we have not a ſuperiority over the Engliſh in cottons. We have the raw material, and even ſell to our rivals the greater part of what they uſe. We have proviſions and labour cheaper than they have *. It is only machines which we want, or rather we do not want them, for we have them in great numbers; we have artiſts capable of perfecting them; we have already the foreign models; we can give prizes, and we have academies to judge †.

"As to the woollen fabrics, we have nothing to fear of competition in fine cloths, ratines, eſpagnollettes, molletons, and caps made of Spaniſh wool; or in which it enters for the greater part. Our fabrication of this ſort is ſuperior to that of the Engliſh; our ſtuffs are ſofter and more durable, and our dyeing more beautiful. We can imitate at will, all the ſombre colours of the Engliſh fabrics, but they cannot copy any of our lively colours, and eſpecially our ſcarlet.

* Not ſo; a man is fed cheaper in France, living badly, but proviſions are not cheaper, and labour is really dearer, though nominally cheaper.

† I muſt ſmile at academies being named among the manufacturing advantages of France: I wonder what academies have done for the manufactures of England.

"In the middling claſs of woollens, which comprizes the tricots and ſmall ſtuffs, we have a marked inferiority. The wools of which theſe are made are with us leſs fine, leſs brilliant, and higher priced. But this evil is not without a remedy.

"Of the next manufacture it may be obſerved, that the Engliſh potteries have been imported at all times into Loraine, without paying any duties, and yet that province is full of manufactures of pottery which proſper."

Relative to the ſteel manufactures, Monſ. du Pont cites the following caſe: "Monſ. Doffer, after having been a long time at Clignancourt occupied for our Engliſh magazines to make bijoux of ſteel, which have been ſold for Engliſh, has been taken under the protection of government, who have furniſhed him with the means of carrying on buſineſs. At preſent eſtabliſhed in the incloſure of the Quinze Vingts, he there fabricates, with at leaſt as great perfection as in England, and at a lower price by 30 per cent.* all the beautiful works in ſteel, watch chains, ſwords, &c. &c. &c."

Monſ. du Pont then inſiſts at length on the great import of Engliſh manufactures, which took place clandeſtinely, not only from England directly, but by Flanders, Holland, Germany, and Liege, which it was found impoſſible to prevent, and contends, that converting ſuch import to a legal one, to the profits of the ſtate, was an object of no ſlight importance.

"It is ſome years ſince the manufacturers of Sedan, and after its example thoſe of Louviers, Abbeville, and of Elbœuf, have raiſed the prices of their cloths 25 per cent. and not without ſome reaſon, imagining, under the influence of a ſpirit of monopoly, to benefit the undertakers of thoſe fabrics. But to whatever reaſon it might be aſſigned, certain it is, that German cloths, which never came into the kingdom before, have, ſince this riſe of price, found a conſiderable ſale in France, to the prejudice of the national manufactures; the treaty of commerce having been made at the time of the evil being felt, the whole effect has been laid, without much reaſon, to the operations of that treaty."

M. Du Pont in like manner examines the ſtate of the ſilk manufacture, which he ſhews to be at Lyons in the loweſt ſtate of miſery and diſtreſs, owing to the war in the north of Europe abſorbing thoſe expences which in peace were otherwiſe employed; to the ſucceſsful exertions in Spain for increaſing the fabrics of that country; and to the failure of the crop of ſilk; yet while the declenſion of that manufacture had thus no ſhadow of connection with the treaty of commerce, yet happening at the ſame time, the evil, like all the others, has been attributed to its influence.

"At all events, the treaty of commerce, ſuch as it is, is perhaps the only guarantee of peace between the two empires. I have the ſtrongeſt reaſon to believe, that its perſpective has haſtened the concuſion a year or two, and we have thus ſpared 400,000,000 livres of expence; the impoſts which would have been neceſſary to pay the intereſt, the loſs of blood, and the frightful chances which every war entrains in its ſuite. It is more than probable, that without it, we ſhould for ſix months paſt have been enga-

* The extravagance of this ridiculous aſſertion, carries in itſelf its own reply: if this cheapneſs ariſes from government premiums or aſſiſtance, it is a farce, and abſolutely beyond any fair concluſion: if it is not from ſuch aſſiſtance, I demand how it happens that this manufacturer has been eſtabliſhed by government? A man who is not able to eſtabliſh his own fabric, able to under-work, and at Paris too! the Engliſh ſteel fabrics 30 per cent!! if ſo, then the Chamber of Commerce in Normandy are truly weak in their arguments in favour of great capitals in the hands of maſter manufacturers, and the fact on the contrary muſt be admitted, that no capital at all will affect the buſineſs juſt as well. What ſatisfaction is here given to prove that the whole of this buſineſs was not, as in many other caſes, a piece of charletainerie in government? To pleaſe and delude the people by a cheapneſs gained by government paying the piper? Has the buſineſs taken root? Has it become a national object? or is it a Paris toy?

ging

ging in hoſtilities, the term of which would have been impoſſible to foreſee. When France and England remain neuter and united, no war can be durable in Europe; for though other powers have cannons, ſoldiers, and bayonets, yet none of them have reſources to ſupport a war of any length; not even thoſe who reckon upon a treaſure, which would be diſſipated in two campaigns at moſt. The only ſolid treaſure is a good agriculture and an induſtrious people. The repoſe of the world, and above all our own, holds therefore almoſt ſolely by this treaty; which citizens, zealous without doubt, but certainly too little enlightened, would wiſh to ſee annihilated.

The argument which has been drawn from the population of the two kingdoms, founded on France containing twenty four millions, and England eight millions, is not uſt. France contains nearly twenty eight millions, and the three Britiſh kingdoms eleven; but the whole reaſoning is a ſophiſm, founded upon ignorance of the riches of the two nations. It is not on population that we are to calculate the means of buying and ſelling, of paying and being paid. Unhappily the greateſt difference found between the two empires is not in their manufactures; that of their agriculture and crops is much more conſiderable. The annual crops of England have been calculated with care at 2,235,000,000 liv. (97,781,250l.) adding thoſe of Scotland and Ireland, they cannot amount to leſs than 3,000,000,000 liv. (131,250,000l.) Thoſe of France, calculated with great ſagacity, after certain caſes in ſome points, and on conjectures combined from all ſorts of views in others, have been valued at the loweſt at 3,200,000,000 liv. and at the higheſt at 4,000,000,000 liv. (175,000,000l.) We have therefore, at the moſt, but a fourth more crop than England; but we have to ſubſiſt a population two and an half times greater. Before we trade abroad we muſt live. Retrench from three milliards the eaſy ſubſiſtence of eleven millions of people; retrench from four milliards the ſubſiſtence, a little more difficult, of twenty-eight millions of people, and you will ſoon ſee that it is not the nation of twenty-eight millions that furniſhes the beſt market for foreign commerce, and conſequently for luxury, which can only be paid for with a ſuperfluity.

The experience of all times has proved, that nations ſucceſſively rival each other in manufactures. Spain debauches and carries off our workmen in ſilk; but ſhe cannot take from us our cultivators, the nature of our ſoil, our happy expoſition, nor the privileged products which we poſſeſs excluſively. It is therefore upon the products of cultivation that muſt be founded, in the moſt ſolid manner, the proſperity and commerce of a great empire.

And even as to fabrics, you ſee by the example of the paſt, that excluding competition has left ours in an inferiority of which you complain. It cannot be neceſſary to prove to you, that the beſt method of raiſing the induſtry of a nation to a par with its neighbours, is by eſtabliſhing ſuch a communication as ſhall place unceaſingly models and objects of emulation under the eyes of ſuch as are inferior.

It is clear that by reſerving to the manufacturers of a nation the excluſive privilege of ſupplying it, we deſtroy among them a great part of the principle of that activity which ought to perfect their induſtry. Believing themſelves ſure of purchaſers, and ſure alſo of fixing their own price, they neglect, with all proprietors of excluſive privileges, to ſeek the means of fabrication the moſt economical, and thoſe which would render their labour the moſt perfect.

Monſ. du Pont enters into a detail of the courſe of exchange through fifty-ſeven pages, from which he deduces the fact, that the balance upon the trade, in conſequence of the treaty, was in favour of France: from May 1787 to March 1788, he gives a table of exchanges, divided into three epochs; 1. From the 1ſt of January 1785, to the re-coin-

age at the French mint in October; 2. From the recoinage to the treaty of commerce, from 1st November 1785 to last of April 1787; 3. From the treaty to the time of his writing, *i. e.* from 1st May 1787 to last of March 1788.

First Epoch.

Par of exchange counted on silver $28\frac{16}{17}\frac{45}{20}\frac{37}{61}$, counted on gold 30.

January, -	$29\frac{1}{11}$	May, -	$28\frac{3}{4}$	August, -	$28\frac{39}{64}$
February, -	$28\frac{13}{16}$	June, -	$28\frac{23}{30}$	September, -	$29\frac{1}{96}$
March, -	$28\frac{25}{32}$	July, -	$28\frac{13}{48}$	October, -	$29\frac{3}{16}$
April, -	$28\frac{25}{32}$				

From January to September 1784, exchange was at 30 and 31, and fell to 29, at which rate it was about 3 per cent. against France; but it fell in June to $28\frac{23}{32}$, which was a loss of 4 per cent.; and in August the loss was at the height, or $4\frac{11}{12}$ per cent. which sunk in October to $2\frac{1}{12}$ per cent.

Second Epoch.

Par of exchange by the alteration in the French money counted on gold $28\frac{15}{35}\frac{05}{36}\frac{65}{89}\frac{51}{67}$, and on silver $28\frac{16}{17}\frac{45}{20}\frac{37}{61}$.

Nov. -	$29\frac{3}{16}$	May, -	$29\frac{17}{48}$	Nov. -	$29\frac{17}{128}$
Dec. -	$29\frac{5}{16}$	June, -	$29\frac{5}{24}$	Dec. -	$29\frac{3}{32}$
Jan. -	$29\frac{55}{96}$	July, -	$29\frac{1}{18}$	1787 Jan. -	$29\frac{5}{16}$
Feb. -	$29\frac{7}{12}$	Aug. -	$29\frac{15}{96}$	Feb. -	$29\frac{1}{2}$
March, -	$29\frac{23}{32}$	Sept. -	$29\frac{9}{32}$	March, -	$29\frac{13}{40}$
April, -	$29\frac{7}{12}$	Oct. -	$27\frac{3}{16}$	April, -	$29\frac{14}{17}$

Upon this epoch, Monsr. du Pont has a long observation concerning a supposed transport of old louis d'or from England to the French mint, which the chamber of commerce, in their reply, justly rejects.

Third Epoch.

Par as before.

1787	May -	$30\frac{3}{16}$	Sept. -	$29\frac{17}{24}$	1788	Jan. -	$29\frac{13}{32}$
	June -	$29\frac{17}{32}$	Oct. -	$29\frac{39}{96}$		Feb. -	$29\frac{1}{3}$
	July -	$29\frac{1}{2}$	Nov. -	$29\frac{39}{96}$		March -	$29\frac{23}{96}$
	Aug. -	$21\frac{17}{32}$	Dec. -	$29\frac{7}{16}$			

During these eleven months, the mean rate has been $29\frac{427}{720}\frac{6}{0}$, or about $2\frac{1}{7}$ per cent. in favour of France.

By the accounts of the *Bureau General de la Balance du Commerce*, the imports of English goods in France for the eight last months of 1787, amounted to 35,294,000 liv., and the export of French goods to England during the same time to 26,276,000 liv., a difference which Monsr. du Pont attempts to convert into the favour of France, upon grounds not at all satisfactory.

The

The Chamber of Commerce, in their reply, aſſert, reſpecting the navigation employed, that from May to December 1787, there entered the ports of France 1030 Engliſh ſhips of 68,686 tons, whereas, in the ſame trade, there were only 170 French ſhips of 5570 tons.

In the ſame reply, the Chamber reject the reaſonings of M. du Pont upon the courſe of exchange, and inſiſt that it was affected by collateral changes, and by tranſactions not commercial.

I ſhall lay before the reader the reſult of the treaty, both according to the Engliſh cuſtom-houſe, and alſo by the regiſters of the *Bureau de la Balance du Commerce* at Paris; which, I ſhould however remark, is beyond all compariſon more accurate in its eſtimations; and whenever it is a queſtion between the authority of the two in oppoſition to each other, I ſhould not heſitate a moment in preferring the French authority; indeed it is certain, that in many articles the valuation attached to ſome denominations is as old as the reign of Charles II. though the real value is known to have quintupled.

Engliſh Account.

Export of Britiſh Manufactures to France.

	£.	s.	d.		£.	s.	d.
1769	83,213	18	4	1784, -	93,763	7	1
1770	93,231	7	5	1785,	244,807	19	5
1771	85,951	2	6	1786,	343,707	11	10
1772	79,534	13	7	1787,	713,446	14	11
1773,	95,370	13	1	1788,	884,100	7	1
1774,	85,685	13	2	1789,	830,377	17	0

The riſe in the years 1785 and 1786, may be attributed to the rage for every thing Engliſh, which, I believe, was then pretty much at its height; the moment the honour of the nation was ſecured by wiping off the diſgraces of the war of 1756, by the ſucceſs of the American one, the predilection for every thing Engliſh ſpread rapidly. In order to ſhew the proportion which our export of manufactures to France bears to our exports to all the world, I ſhall inſert the total account by the ſame authority.

	£.	s.	d.		£.	s.	d.
1786, -	11,830,194	19	7	1789, -	13,779,740	18	9
1787, -	12,053,900	3	5	1790, -	14,922,000	0	0
1788, -	12,724,719	16	9				

We know that all theſe ſums are incorrect; but we may ſuppoſe the incorrectneſs as great one year as another, and that therefore the compariſon of one year with another may be tolerably exact. The following French accounts have been taken with ſingular attention; and as duties have been levied on every article, the amount may be more, but cannot be leſs.

French Account.

Imports from England into France, in 1788.

	liv.
Woods, coal, and raw materials, of which coal near 6,000,000 liv.	16,553,400
Other raw materials, not the direct product of the earth,	2,246,500
Manufactured goods,	19,101,900
Manufactured goods from foreign industry	7,700,900
Liquors *(boiſſons)*	271,000
Eatables *(comeſtibles)* ſuch as ſalt meat, butter, cheeſe, corn, &c.	9,992,000
Drugs,	1,995,900
Groceries,	1,026,900
Cattle and horſes,	702,800
Tobacco,	843,100
Various articles,	187,200
Weſt India cotton, and Weſt India goods, none.	
	60,621,600

Exports from France to England, in 1788.

	liv.
Woods, coal, and raw materials,	534,100
Other raw materials, not the direct product of the earth,	035,200
Manufactured French goods,	4,786,200
Manufactured goods from foreign induſtry,	2,015,100
Liquors,	13,492,200
Eatables,	2,215,400
Drugs,	759,100
Groceries, none,	
Cattle and horſes,	181,700
Tobacco,	733,900
Various articles,	167,400
Weſt India cotton,	4,297,300
Weſt India goods,	641,100
	30,458,700

Explanation.—All manufactured goods, both Engliſh and foreign, imported by t liſh merchants have been under-rated about one-twelfth, which will add 3,: liv. The French exports muſt alſo be increaſed for ſmuggling, &c. &c.; there is great reaſon to think the real account between the two nations may ſtated:

	liv.
Exports from England to France,	63,327,600
—— France to England,	33,847,470
Balance againſt France,	29,480,130

			liv.
Total Exports of England to France in 1789,		-	58,000,000
Ditto of Engliſh manufactures in	1787,	—	33,000,000
	1788,	—	27,000,000
	1789,	—	23,000,000

Hence it appears, that the two cuſtom-houſes do not differ eſſentially in their accounts.

Before I offer any obſervations on theſe accounts, I ſhall inſert a few notes I made at ſome conſiderable towns of the intelligence I received perſonally.

1787.—Abbeville.—In diſcourſe upon the effect of the new treaty of commerce with England, they expreſſed great apprehenſions that it would prove extremely detrimental to their manufactures. I urged their cheap labour and proviſions, and the encouragement their government was always ready to give to manufactures: they ſaid, that for their government nothing was to be depended upon; if their councils had underſtood the manufactures of the kingdom, they certainly would not have made the treaty upon ſuch terms; that there were intelligent perſons in their town who had been in England, and who were clearly of opinion, that the ſimilar Engliſh fabrics were ſome cheaper and others better, which, aided by faſhion in France, would give them a great advantage; that proviſions were by no means cheap at Abbeville, and the workmen in ſeveral branches of their fabrics were paid nearly as much as in England, without doing the work equally well, at leaſt this was the opinion of ſome very good judges; and laſtly, that all Abbeville are of this opinion.

Amiens.—I had here ſome converſation to the ſame purport as at Abbeville; the whole town I was aſſured had been alarmed from the firſt rumour of the terms on which the treaty of commerce had been concluded; they are well convinced that they cannot in any one inſtance, as they aſſert, ſtand the competition of Engliſh goods. On my aſking what reaſon they had for ſuch an idea, the perſon I converſed with went into a warehouſe, and bringing a piece of ſtuff and another of flannel, they were, he ſaid Engliſh, and from the price at which they were gotten before the treaty, he drew the concluſion; he was alſo, he ſaid, well informed of the prices in England. In the cotton fabric, he ſaid, the ſuperiority was yet greater; in a word, that Amiens would be ruined, and that on this point there was but one opinion.

The manufacturers of all countries are full of theſe apprehenſions, which uſually prove extremely groundleſs. In all probability the effect would be as expected, if a counter ſtream of emulation and induſtry did not work againſt it. The introduction of Engliſh fabrics may be hurtful for a time, but in the long run may be beneficial, by ſpurring up the French manufacturers to greater exertions and to a keener induſtry.

Bourdeaux.—The intercourſe between this port and England has been increaſed a great deal ſince the treaty. Warehouſes of Engliſh goods are opened. The article which has hitherto ſold the beſt, and quickeſt, is that of the Staffordſhire potteries; the quantities of theſe which have been ſold is very great: but the hardware ſent hither has been found ſo dear, that it could not be ſold in competition with French and German, except in a very few articles. Of ſadlery there are ſeveral ſhops opened that have ſold largely. Beer has been tried, but would not do; the Dutch is ſtill preferred for the Weſt Indies as cheaper; that of England has been ſold at 90 livres the barique, of 250 French bottles, and ſome of it arrived ſo bad as not to be merchantable. Wine

has

has increaſed in its export to England, but not ſo much as was expected; before the treaty it was eight thouſand tonneaux a year, and it has not riſen to twelve thouſand; however the courſe of exchange is againſt England ¼th, and wine, owing to the preſent failure of the crop, has increaſed in price 50 per cent. Brandy has alſo increaſed.

The Engliſh take only the two firſt qualities of wines—or, rather they are ſuppoſed to do ſo; for their merchants eſtabliſhed here mix and work the wine ſent in ſuch a manner, that the real quality of it is unknown: this is the account given us. Thoſe two firſt ſorts are now at 20l. to 22l. a barique, which is two hundred and fifty French bottles, and two hundred and ſeventy Engliſh ones. The other qualities are ſold from 15l. to 18l. port charges, caſk and ſhipping included; freight to London is 50s. a ton, beſides 15 per cent. primage, average, &c. The French duty is 28 livres the tonneau, which has been lowered to 5 livres 5ſ. from laſt October to the firſt of January next, a regulation which it is ſaid will not take place longer.

Beauvais.—The opinion univerſal among the manufacturers here is, that the Engliſh fabrics are ſo ſuperior in cheapneſs, from the wiſe policy of the encouragements given by government, that thoſe of Beauvais, ſhould they come in competition, muſt ſink; ſo much of the fabrics here as are for the conſumption of the lower people might perhaps ſtand by it, but not any others; and they think that the moſt mi[illegible]evous war would not have been ſo injurious to France, as this moſt pernicious treaty.

Lille.—I no where met with more violence of ſentiment, relative to this treaty, than here; the manufacturers will not ſpeak of it with any patience; they wiſh for nothing but a war; they may be ſaid to pray for one, as the only means of eſcaping that ideal ruin, which they are all ſure muſt flow from the influx of Engliſh fabrics to rival their own. This opinion ſtruck me as a moſt extraordinary infatuation; for in the examination which took place at the bars of our Houſes of Lords and Commons, this is preciſely the town whoſe fabrics were repreſented as dangerouſly rivalling our own, particularly the camblets of Norwich; and here we find exactly the counter part of thoſe apprehenſions. Norwich conſiders Lille as the moſt dreadful rival, and Lille regards Norwich as ſo formidable to her induſtry, that war and bloodſhed would be preferable to ſuch a competition. Such facts ought to be uſeful to a politician; he will regard theſe jealouſies, wherever found, either as impertinence or knavery, and pay no attention whatever to the hopes, fears, jealouſies, or alarms, which the love of monopoly always inſpires, which are uſually falſe, and always miſchievous to the national intereſts, equally of every country.

Naotes.—In converſation here on this treaty with ſome very reſpectable commercial gentlemen, they were loud againſt it; inſiſted that France ſent no fabrics whatever to England in conſequence of it, not to the amount of a ſingle ſol; ſome goes, and the ſame went before the treaty; and that England has not imported more wine or brandy than uſual, or at leaſt to a very ſmall amount; we know at preſent that this was not correct.

Rouen.—The quantity of merchandize of all ſorts that has been imported here from England ſince the treaty, is very conſiderable, eſpecially Staffordſhire hardware, and cotton fabrics, and ſeveral Engliſh houſes have been eſtabliſhed. They conſider the treaty here as highly detrimental to all the manufactures of Normandie.

I am better ſatisfied with the real fact than if it were, as the Chamber of Commerce of Normandie imagined, much more in favour of England; for as the benefit is more likely to laſt, ſo the treaty is more likely to be renewed; and conſequently peace between the two kingdoms to be more durable. The balance of the manufacturing account does not exceed 14 millions, which is very far ſhort of the French ideas, and muſt,

in

in the nature of things, leſſen. The 18 millions of raw materials and coals, inſtead of being an import hurtful to the intereſts of French induſtry, is beneficial to it; and they themſelves wiſely conſider it as ſuch, and lamented the old duties on the import of Engliſh coal, aſſerting, that there ought to be none at all. Here are 10 millions of imports, and a balance of eight in direct objects of agriculture, as corn and meat. If a people will manage their agriculture in ſuch a prepoſterous manner, as not to be able to feed themſelves, they ſhould eſteem themſelves highly obliged to any neighbour that will do it for them. Raw materials, including drugs, with cattle, corn, and horſes, very nearly account for the whole balance, great as it is, that is paid on the total to England; and as ſuch objects are as much for the advantage of France to import, as for the benefit of England to export, the whole trade muſt, both in extent and balance, be deemed equally reciprocal, and of courſe equally tending to advance the proſperity of each kingdom. There is, however, a circumſtance in which matters are very far from being reciprocal, and that is, in payments. The French are paid for their goods, whatever theſe may be, according to agreement; but that is very far from being the caſe with the complaints againſt the mode of dealing in France, not only in reſpect of payment, but alſo of want of confidence, ſince their goods, fairly executed, according to patterns agreed on, are ſeldom received without diſpute or deduction: and while they chearfully do juſtice to the punctuality of the Americans, Germans, &c. they put very little value on the French trade, ſpeaking in general. It is the ſame with Birmingham, whoſe merchants and manufacturers aſſert ſtrenuouſly, that the commercial treaty has been of *no* ſervice to their town; the French having taken as largely their goods by contraband, before the treaty, as at preſent, through a different channel; with this change, that the Dutch, Germans, and Flemmings, with whom they dealt before, paid better than the French. Theſe circumſtances are great deductions from the apparent merit of the treaty, which cannot be fairly eſtimated, unleſs we could know the amount of our exports ſent out clandeſtinely before it was concluded. The manufacturers are certainly the beſt judges; and they unite, with one voice, throughout the kingdom, either to condemn it, or at leaſt to aſſert its having been a mere *transfer* from one channel to another, and not an *increaſe*. The benefit of it, however, as a political meaſure, which tends to eſtabliſh a friendſhip and connection between the two countries, cannot be called in queſtion with any propriety; for the mere chance of its being productive of peace, is of more conſequence than ten ſuch balances, as appears on the foot of the above mentioned account.

CHAP. XIX.—*Of the Manufactures of France.*

PICARDIE—*Abbeville.*—THE famous manufacture of Vanrobais has been deſcribed in all dictionaries of commerce and ſimilar works; I ſhall therefore only obſerve, that the buildings are very large, and all the conveniencies ſeem to be as complete as expence could make them: the fabric of broad cloths is here carried on upon the account of the maſter of the eſtabliſhment, from the back of the ſheep to the laſt hand that is given. They aſſert, that all the wool uſed is Spaniſh, but this muſt be received with ſome degree of qualification. They ſay that one thouſand five hundred hands are employed, of which two hundred and fifty are weavers; but they have experienced a great declenſion ſince the eſtabliſhment of the fabric at Louviers, in Normandie. They have ſeveral ſpinning jennies, by which one girl does the buſineſs of forty-ſix ſpinners.

An eſtabliſhment of this kind, with all the circumſtances which every one knows attended it, is certainly a very noble monument of the true ſplendour of that celebrated

reign to which Monſ. de Voltaire juſtly enough gave the title of *Age*; but I have great doubts whether it is poſſible to carry on a manufacture to the beſt advantage, by thus concentrating, in one eſtabliſhment, all the various branches that are eſſential to the completion of the fabric. The diviſion of labour is thus in ſome meaſure loſt, and entirely ſo in reſpect to the maſter of each branch. The man whoſe fortune depends entirely on the labour of the ſpinner, is more likely to underſtand ſpinning in perfection, than he who is equally concerned in ſpinning and weaving; and it is perhaps the ſame with reſpect to dreſſing, milling, dying, &c. when each is a ſeparate buſineſs each muſt be cheaper and better done. The appointment of commis and overſeers leſſens, but by no means gets rid of the difficulty. In viewing a manufacture therefore I am not ſo much ſtruck with that great ſcale which ſpeaks a royal foundation, as with the more diffuſive and by much the more uſeful ſigns of induſtry and employment, which ſpread into every quarter of a city, raiſe entire ſtreets of little comfortable houſes, convert poor villages into little towns, and dirty cottages into neat habitations. How far it may be neceſſary when manufactures are firſt introduced into a country to proceed on the plan followed by Louis XIV. I ſhall not enquire, but when they are as well eſtabliſhed as they are at preſent, and have long been in France, the more rivals in ſmaller undertakings, which theſe great eſtabliſhments have to contend with, the better it will generally be found for the kingdom, always avoiding the contrary extreme, which is yet worſe, that of ſpreading into the country and turning what ought to be farmers into manufacturers.

Beſides fine cloths, they make at Abbeville carpets, tapeſtry, worſted ſtockings, barracans, a light ſtuff much worn by the clergy, minorques, and other ſimilar goods. They have alſo a ſmall fabric of cotton handkerchiefs.

Amiens.—Abounds with fabrics as much as Abbeville; they make cottons, camblets, calimancoes, minorques, coarſe cloths; there is ſcarcely any wool worked here but that of Picardy and a little of Holland, none of England, or next to none; they would get it they ſay if they could, but they cannot. I examined their cotton ſtockings carefully, and found that 4 or 5 livres was the price of ſuch as were equal to thoſe I had brought from England, and which coſt at London 2s. 6d.; this difference is ſurprizing, and proves, if any thing can, the vaſt ſuperiority of our cotton fabrics.

Breteuil.—They have a manufacture here on a ſmall ſcale of ſcythes and wood hooks, the former at 45*ſ.* the latter at 30*ſ.* the iron comes from St. Diziers, and the coals from Valenciennes. Nails are alſo made here for horſe-ſhoes at 8*ſ.* the lb. but not by nailors who do nothing elſe.

Orleans.—The manufactures are not inconſiderable, they make ſtockings of all kinds, and print linens; a fabric of woollen caps has been eſtabliſhed here ſince Louis XIV.'s time, in which two houſes are employed; the chief we viewed. It employs at home about three hundred working hands, and twelve to fifteen hundred others. The caps are entirely made of Spaniſh wool, three ounces of yarn make a cap; they are all for exportation, from Marſeilles to Turkey and the coaſt of Africa, being worn under turbans; in dreſſing they extract the greaſe with urine, full and finiſh in the manner of cloth.

The ſugar refinery is a conſiderable buſineſs, there are ten large and ſeventeen ſmaller houſes engaged in it; the firſt employ each forty to forty-five workmen, the latter ten to twelve; one of the principal, which I viewed, makes 600,000lb. of ſugar, and the reſt in proportion. The beſt ſugar is from Martinico, but they mix them together. Rum is never made from molaſſes, which is ſold to the Dutch at 3*ſ.* the lb. the ſcum is ſqueezed, and the refuſe is ſpread thick on meadows to kill moſs, which it does

does very effectually. The price of raw ſugar is 30 to 45 livres per 100lb. The coal they burn is from the vicinity of Moulins, in the Bourbonnois. Trade in general is now briſk here.

ROMORENTIN.—A fabric of common cloths for liveries and ſoldiers, carried on by private weavers, who procure the wool and work it up; they are at leaſt one hundred in number, and make on an average twenty pieces each in a year; it is ſent to Paris. At Vatan there are about twenty of the ſame weavers and three hundred ſpinners.

CHATEAUROUX.—A fabric of cloth, which two years ago, before the failure of the maſter, gave employment to five hundred hands, boys included, and to one thouſand five hundred to one thouſand eight hundred ſpinners in this and the neighbouring provinces; it is a *Manufacture Royale*, like that at Abbeville, of Vanrobais, by which is to be underſtood an exemption for all the workmen employed within the walls from certain taxes, I believe tailles. Some gentlemen of the town keep at preſent one hundred hands at work in the houſe, and the ſpinners depending on that number, in order that the fabric might not be loſt, nor the poor left entirely without employment; there is true and uſeful patriotiſm in this. The cloths that were made here were 1 to 1¼ aulns broad, which ſold at 8 livres to 23 livres the auln; they make alſo ratteens. In the town are about eighty private weavers, who make nearly the ſame cloths as at Romorentin, but better; ſell from 8 livres to 18 livres the auln, 1¼ broad; theſe private fabrics, which do not depend on any great eſtabliſhment, are vaſtly preferable to concentrating the branches in one great incloſure; the right method of remedying ſuch a failure as has happened here, is to endeavour by every means to increaſe the number of private undertakers. The cloths are all made of the wool of the country now 20 to 37*ſ.* the lb. it has been dearer for two years, and ten years ago was to be had for 15 to 20*ſ.* from the 24th of June it is ſold at every market, and in large quantities; manufacturers come from Normandy and Picardy for twelve days together to buy wool, waſh, and ſend it off.

At two leagues from Chateauroux are iron forges, which let at 140,000 livres a year, (6125l.) belonging to the Count d'Artois.

LIMOGES.—The moſt conſiderable fabric here is that of druggets, the warp of which is of hemp thread, and the woof of wool, one hundred looms are employed by them. Siamoiſe ſtuffs are made of hemp and cotton, ſold at 30 to 48*ſ.* an auln; there are about one thouſand or one thouſand one hundred cotton ſpinners in the Limoſin, alſo various mixed ſtuffs of ſilk and cotton, and ſilk and thread, under many denominations, for gowns, coats, waiſtcoats, breeches, &c. from 4 to 6 livres the auln. Some ſtuffs, which they call China, are rather dearer; a gown ſelling for 4 louis, but of ſilk gauze only 2 louis; this fabric employs about twenty looms, worked each by three or four people, boys included. I took many ſpecimens of theſe fabrics, but in general there is a great mixture of ſhew and finery with coarſeneſs of materials and cheapneſs of price, not at all ſuitable to an Engliſh taſte.

They have alſo a porcelane manufacture, purchaſed by the King two years ago, which works for Seve; it gives employment to about ſixty hands; I bought a ſpecimen, but nothing they make is cheap, and no wonder, if the King is the manufacturer.

They have in the generality of Limoges, which includes the Angoumois, ſeventy paper mills that manufacture all kinds; they are ſuppoſed to make every day to the quantity of 19 *cuves*, the contents of which vary according to the ſort of paper. A cuve of 130lb. will make 6½ reams of large and fine paper, but double that quantity of other ſorts; they calculate that a mill can work about two hundred days in a year, feſtivals and repairs excluded; this makes at a cuve a day 454,200lb. for a year's work

of a mill, and 31,794,000lb. for the whole generality, and they value it at 20*s.* the lb. which makes as many livres, or 1,390,987l. They conſider the manufacture as greatly overloaded with an exciſe, which amounts to about $\frac{1}{8}$th part of the value, but they have an allowance for all they prove to be deſigned for exportation, in the nature of our drawbacks; the manufacture has increaſed notwithſtanding the duty. They reckon here, and in all the paper mills of France, the cylinder for grinding the rags, which they call *Dutch* (and which we have had ſo long in England), as a new and great improvement. Each mill employs from twelve to twenty hands, including carters; they reckon that half the paper is exported, much to the Baltic, and ſome they ſay to England.

They have alſo in this generality forty iron forges, ſome of which employ one hundred people, one is a foundry for caſting and boring cannon.

Brive.—A ſilk fabric has been eſtabliſhed here about five and twenty years, ſilk alone is wrought in it, and alſo mixed with cotton, and gauzes of all kinds are made; they ſay they have diſcovered a manner of dying raw ſilk, with which they make plain gauzes $\frac{1}{8}$ths of an auln broad and 11 long; the price varies according as they are *chinées* (waved), or not; a piece white, ſtriped or not, is 54 livres, (2l. 7s. 3d.) coloured ones 60 livres, (2l. 12s. 6d.) and the *chinées* 80 livres, (3l. 10s. 0d.); they make alſo a thick ſhining ſtuff in imitation of Mancheſter, at 6 livres the auln, and ſilk and neck handkerchiefs of a German taſte, ſold chiefly in Germany and Auvergne. A merchant alſo at Baſle, in Switzerland, is ſo good a cuſtomer as to have taken one thouſand dozen of them. They have ſixty or eighty looms conſtantly at work in the town; the weaver having his loom in his houſe and ſupplied with the material from the manufactory, and paid by the piece; each loom employs five people, women and children included. They uſe only French ſilk, which though not ſo ſhining as the Italian, is they ſay, ſtronger, bears the preparation, and wears better.

They have alſo here a cotton mill and fabric which is but in its infancy, has only one combing machine, and three double ones for ſpinning; they ſay that this machine, with the aſſiſtance of fifteen people, does the work of eighty; this undertaking has been eſtabliſhed and is carried on by Meſſrs. Mills and Clarke, the former an Engliſhman from Canterbury, the latter from Ireland, both induced by encouragements to ſettle in France.

Souillac—*Payrac.*—No manufactures whatever in the country.

Cahors.—Some ſmall manufactories among them, one of woollen cloth; ſome years ago it had near one thouſand workmen, but the company diſagreeing, a law-ſuit enſued, ſo that it decreaſed to one hundred and fifty; the ſpinners are chiefly in the town; work up both French and Spaniſh wool, but the latter not of the firſt quality. They ſhewed us however ſome cloth, made as they ſay, entirely of Spaniſh wool, at 3 livres 10*s.* the lb. which is not ſo good as their ratteens made with $\frac{2}{3}$ wool of Navarre and Rouſſillon, and $\frac{1}{3}$ Spaniſh; they make ſome cloths for the home conſumption of the province, entirely with the wool of Navarre, an auln broad, at 11 livres the auln; ratteens $\frac{5}{4}$ of an auln broad, at 22 livres the auln; a ſecond ſort of ratteens, made with French wool, an auln broad, 11 livres the auln.

Caussade.—This country is full of peaſant proprietors of land, who all abound very much with domeſtic manufactures; they work their wool into common cloths and camblets, and all the women and girls ſpin wool and hemp, of which they make linen; there are weavers that buy about two quintals of wool, pay for the ſpinning, weave it, and carry the cloth to market, and there are merchants that buy the ſuperfluity for export.

MONTAUBAN.—The woollen manufacture here is of ſome conſequence, conſiſting of common cloths, *croiſées*, half an auln broad, and ſeveral ſorts of ſtuffs; they give the epithet *royale* to one houſe, but in general the ſpinning and weaving are carried on both in the town and the country, not only on account of the maſter manufacturers, but alſo by private weavers, who make and carry their ſtuffs to market undreſſed; the people of the fabric I viewed aſſert, that they uſe only Spaniſh wool, but this is every where in France a common aſſertion by way of recommending their fabrics, and has been heard in thoſe, known on much better authority to uſe none at all; another circumſtance to be noted is, that the wool of Rouſſillon goes in common manufacturing language under the denomination of Spaniſh; I ſaw their raw wool, and am clear, that if it is Spaniſh, it is of a very inferior ſort; the quality and the price of the cloths ſpeak the ſame language; they dye the cloth and not the wool previouſly; they ſell their broad cloths, which are $\frac{7}{8}$ths of an auln wide, at 17 livres the auln, (14s. 10½d.) and the *croiſées* at 5 livres 10*ſ.* Twelve hundred people are ſaid to be employed by this fabric.

The ſilk manufacture is alſo conſiderable; they work up not only the ſilk of the environs, but of the upper country alſo; they make ſtockings and ſmall ſtuffs, but the former the chief; it is executed like the woollen fabric, both by maſter manufacturers and by private looms; a ſtocking engine coſts from 15 to 20 louis, and a workman can earn with it to 3 livres a day.

TOULOUSE—Has a woollen and a ſilk fabric; in the firſt are worked light ſtuffs, and has about eighty looms, which are in the town; in the other ſtockings, ſtuffs, damaſks, and other fabrics, worked in flowers; about eighty looms alſo.

St. MARTIN.—There are here ten manufacturers' houſes, one of which made laſt year ſeven hundred pieces of woollen ſtuffs, each ſix aulns long; on an average each houſe five hundred pieces, chiefly bays, ſays, and other ſtuffs, the chain of thread; ſome for home conſumption, but chiefly for exportation to Spain. Their beſt is 4 livres 15*ſ.* the canne of eight palms, and ten palms to the auln, half an auln broad. Other ſtuffs 3 livres 15*ſ.* dye in all kinds of colours. There are plenty of ſpinners of both thread and wool; weavers and ſpinners are ſpread over the country, but the combers and carders are at home. They uſe ſome Spaniſh wool from the Navarre hills at 30*ſ.* the lb. this year 33*ſ.* but very dear.

ST. GAUDENTZ—Manufactures ſeveral ſorts of ſtuffs, both wool alone, and wool and thread mixed; the principal fabric is a light ſtuff called Cadis, the greater part of which is exported to Spain.

BAGNERE DE LUCHON.—At half a league from this place is a manufacture of cobalt; it is ſaid, the only one in the whole kingdom, which was all ſupplied, before the eſtabliſhment of this fabric, by a Saxon gentleman, from the works in Saxony; and what is now made here is uſed at home and exported as Saxon cobalt. The ore is brought from Spain at a very high price, from a mine in the Pyrenees, not more diſtant in a ſtrait line than ſix leagues, but the road is ſo rocky that the ore is brought by the valley of Larbouſte, which takes up a day and a half. The ore is not found in veins, but in lumps (*rognons*), ſo that it is often loſt and found again.

A remarkable circumſtance, and hardly credible, is their employing ore alſo from Styria, which is ſhipped at Trieſte for Bourdeaux, and brought by the Garonne to Touloufe, and hither by land, at the expence of 45*ſ.* the quintal. They uſe alſo ſome from Piedmont; of theſe different ores, that from Styria is the worſt, and the Spaniſh the beſt; they coſt at the manufactory, one with another, 300 livres to 360 livres the quintal: the Spaniſh ore is the firſt deſcribed by Monſ. Fourcroy, the grey or aſh coloured; they do not melt theſe ores ſeparate but mixed together.

The proceſs purſued in this manufactory would be tedious to ninety-nine hundredths of my readers, I ſhall therefore only give a few heads from the memoranda I made after having viewed it attentively: the reputation of the Duc de la Rochefoucauld, as an able chymiſt, united with his rank, induced the director of the fabric to explain the matter fully; I attended him in viewing the work: they firſt pound the ore into powder, which is placed in a ſort of ſpoon in a furnace to roaſt, for the purpoſe of expelling the arſenic by ſublimation; it is received in a canal or chimney, which winds horizontally; by an opening in the wall a man enters for gathering this arſenic; this is an operation very dangerous to the health, yet for 4*s.* to 3 liv. a day they get men to execute it, who for a preventative of the ill effects ſwallow ſome milk, and keep cloths to their mouths and noſes dipped in milk, and kept conſtantly wetted. The cobalt remains after this roaſting in a greyiſh black calx; biſmuth is found mixed with it, which is found at the bottom of the ſpoon. They have another way alſo, which is that of fuſing the cobalt, thus purged of its arſenic, in order to get the regulus; I ſaw ſome large pieces of regulus with biſmuth adhering, which were in all probability procured in this method; hitherto they have not applied the biſmuth to uſe, nor tried whether it would anſwer to ſend it to thoſe places where it is worked.

Having thus obtained the calx of the cobalt, they mix it with pot-aſh and roaſted flints as a flux, in large crucibles, which are placed ſix together, in a large long furnace, the upper part of which is arched to an angle, a current of air paſſing; the furnace is heated with dry beech wood billets. Some chymiſts aſſert, that there ſhould be of flints three to one of the cobalt, but they uſe ſixteen to one, which they ſay is the Saxon method, and theſe flints contain ſome ſmall portion of cobalt; it requires a fierce fire of twelve hours to reduce the calx of cobalt to a glaſs; when this is nearly in a white fuſion (as they term it) they take it out with iron ladles, and throw it into a veſſel conſtantly ſupplied with freſh water for cooling, from which it is taken to a pounding mill and beat to powder, in which operation they almoſt always find ſome drops of regulus, which are taken out; when pounded it is carried to a kind of table three ſtories high, ſtreams of water are turned on to it, while two men at each table ſtir it; this is for freeing the cobalt from impurities; it paſſes with the water into a large tub pierced at different heights, that the water may flow away and leave the cobalt at the bottom; but as this water is in ſome meaſure tinctured with this precious material, it is not ſuffered to run to waſte; a large ciſtern is under the whole room into which it is received, and whence it is drawn off from time to time; the cobalt thus gained is of the worſt quality.

The waſhed cobalt is carried to a mill, which grinds it under a ſtone, the powder is received in a large veſſel of water, which is made by trituration to imbibe the tincture, and is hence drawn off four times into as many veſſels, that the water may depoſit the material. The powder thus gained is carried to the drying room, where it is dried in long ſhallow trays, and then reduced to a finer powder by ſifting; in which ſtate it is ſo fine that they water it with a gardener's roſe to prevent its being blown away, in which ſtate it is in order to pack into caſks for ſale.

The motion to the whole machinery is given by two underſhot water wheels.

Vicinity to the Spaniſh mine, and cheapneſs of wood were the inducements to eſtabliſh this fabric here; they now make pot-aſh, which was formerly imported from the Baltic, and coſt 40 liv. the quintal, but they can make it here for 12 liv.

NARBONNE.—A manufacture *royale* of ſilk ſtuffs, the maſter of which is a bankrupt. This is the ſecond of theſe privileged eſtabliſhments which I have found in the ſame ſituation; Chateauroux the former. It ſhould ſeem that government never interferes by privileges but to do miſchief.

BEZIERS.—A ſmall fabric of ſilk ſtockings.

MONTPELLIER.—Conſiderable fabrics of blankets, ſilk handkerchiefs, verdigreaſe, and many other articles.

NISMES.—This is one of the moſt conſiderable manufacturing places in France; they make a great variety of ſtuffs, in ſilk, cotton, and thread, but the firſt is the great manufacture; theſe are ſaid to maintain from ten to fifteen thouſand hands; for the intelligence varied between thoſe numbers. Silk ſtockings are ſaid to employ two thouſand; handkerchiefs are a conſiderable article, printed linens, &c; in the laſt there are workmen that earn 7 or 800 liv. a year.

GANGE.—The moſt noted manufacture of ſilk ſtockings in all France; they make them up to 36 liv. a pair.

VIGAN.—Silk ſtockings, and ſilk and cotton veſts.

LODEVE.—The principal manufacture here is cloth for the uniforms of various regiments in the French army; ſix thouſand men are thus employed. They make alſo ſilk ſtockings and veſts of cotton, but no cloths for the Levant; ſixty quintals of oil are conſumed in the town every week in the year.

BEG DE RIEUX.—The manufactures here are the famous cloths called *Londrins*, which are exported to the Levant; they are made of the wool of Rouſſillon and Narbonne; alſo fine cloths of a thicker ſtaple, and ſilk ſtockings. The villages in the mountains are all employed in this manufacture.

CARCASSONNE.—Londrins the great fabric here alſo; the maſter manufacturers give the materials to the weavers, who are paid by the piece, and thus the manufacture ſpreads into the country both ſpinning and weaving; they are made of Rouſſillon and Narbonne wool, which goes by the name of Spaniſh, forty-ſix inches wide, the l'aune eight paus. They have alſo eſtabliſhed a ſmall fabric of fine cloths, which they term à façon de Louviers, at ten liv. an auln, but not comparable to the original.

I ſhould obſerve, that theſe Londrins, of which at all theſe towns I took patterns, are a very light, beautiful, well dyed, bright cloth, that have had, and deſervedly, from quality and price, the greateſt ſucceſs in the Levant. I ſaw the wool they are made of, and ſhould not have known it from a good ſpecimen from the South Downs of Suſſex.

BAGNERE DE BIGORE.—They make here ſome ſtockings and woollen ſtuffs, but not to any amount.

PAU.—A conſiderable manufacture of linen handkerchiefs, with red cotton borders, alſo of linen for ſhirts, table-cloths, and napkins; the flax is raiſed chiefly in the country around; the fabric is ſpread into the country in every direction; much exported to Spain and to America, by way of Bourdeaux. The handkerchiefs are from 36 to 72 liv. the dozen, my ſpecimen at 42*ſ.* each, and by the dozen 42 liv. to 48 liv. the ſquare 3 paus $3\frac{3}{10}$. The linen for ſhirts is of the ſame breadth, and the price is from 50*ſ.* to 6 liv. the auln. A table-cloth and twelve napkins they call a ſervice, and coſts from 36 to 150 liv. I examined all, and thought them on the whole very dear, for they make hardly any thing tolerably fine.

ANSPAN.—The Pau linen manufacture is here alſo on a ſmaller ſcale.

AIRE.—A ſmall manufacture of porcelain, or rather earthen-ware, a cup and ſaucer for 8*ſ.* alſo of linen for the table and ſhirts.

LEITOUR.—There is here a tannery, which was twenty-five years ago not an inconſiderable manufacture, that is, before the exciſes on leather were laid, but now reduced to leſs than one fourth of what it was; at that time it uſed thirty-ſeven thouſand quintals of bark, and dreſſed eighteen thouſand ſkins, but now only four thouſand. The

King's

King's wood near the town, which is extenſive, yield the bark, the price 40 to 50ſ. the quintal; their water-mill grinds one hundred quintals a day; the bark cakes for fuel ſell at 6 liv. the thouſand. They have one hundred and twenty tan pits, which give employment to about one hundred men. The maſter of the fabric complains bitterly of the tax, which is 2ſ the pound on all ſorts of leather, ſheep ſkins excepted, and he is clear that it has deſtroyed the manufacture. It is paid only when the dreſſed hides are taken out of the warehouſe for ſale, by which means the leſs capital on account of the tax is neceſſary.

AGEN.—The chief manufacture here is one of ſail-cloth, very much decreaſed ſince the war, which, while it laſted, gave it an extraordinary vigour; at that time 320 workmen were employed in the houſe; now it has only one hundred and fifty in winter. There are now eighteen to twenty combers doing twenty pound of hemp a day, for which they are paid 8 liv. the quintal; in the war there were forty of them; three hundred and ſixty pound of hemp per diem is therefore the amount of the fabric. All hemp uſed is raiſed on the banks of the Garonne, and ſpun in the country at the rate of 7ſ. the pound for the beſt thread. We viewed an apartment with eighty-four looms (they have one hundred and ſixty in the houſe) that make eleven ſorts of ſail-cloth for the royal navy, in general of twenty-two or twenty-four inches broad; the firſt is ſold at 44ſ. the auln, the ſecond at 48; to prepare the hemp for combing, they grind it under a cylindrical ſtone in a ſort of ciſtern; it is then divided into two ſorts for ſails, and into a third for ropes. They have many ſtone ciſterns for bleaching one hundred and fifty quintals of thread at a time, of which one man does the whole work by means of pumping the lixivium at once from the copper into all the ciſterns. The weavers are paid 5½ſ. the auln on an average.

Beſides this fabric of hemp they have one of cotton, which is ſtopped at preſent; one of printed linens, which is briſk, and another of ſerges and other woollen ſtuffs, which is carried on by private weavers in their own houſes.

CHATEAURAULT.—They have a manufacture of cutlery here, in which there is one circumſtance that appears rather ſingular, which is the fabric being carried on with ſucceſs almoſt without a diviſion of labour. Every houſe in ſeveral ſtreets is a cutler's ſhop, with its little forge, tools, grinding-wheel, &c. and the man, with the aſſiſtance of his wife and children, makes knives, ſciſſars, &c. &c. executing the whole proceſs himſelf, which in a large fabric goes through ſo many hands. As a foreigner I paid more than the fair price for the ſpecimens I bought, yet they were very cheap, vaſtly cheaper than I could have believed poſſible with a manufacture carried on in contradiction to a principle which I had erroneouſly conceived to be eſſential to cheapneſs; they make nails alſo. Fuel is no where cheap in France (unleſs it be in the foreſt of the Lyonois,) yet here are hundreds of little forges burning, to execute what one would perform at a third of the expence.

TOURS.—The principal manufacture in this city is that of ſilk; they make flowered damaſks and plain ſtuffs; there is a large building called the *Manufacture Royale*, in which many workmen were once employed, but none at preſent, as it is found more advantageous to give the ſilk to the workmen, in order for their weaving it at their own houſes, which ſeems an experiment that aſcertains the benefit of theſe expenſive eſtabliſhments; the whole fabric has however declined exceedingly, and is at preſent at a very low ebb; nor are the men aſſured of conſtant employment, which is the worſt circumſtance that can attend any fabric. Prices of weaving vary of courſe with the patterns of flowered ſilks; one which I ſaw working, a very full pattern, was paid for at the rate of 7 liv. the auln, the price of the ſilk 38 liv. the auln, and to make the auln, employed

the man, his aſſiſtant, and his wife, two days, which earnings may be divided into 40*ſ.* a day for the weaver, 20*ſ.* for his aſſiſtant, and 10*ſ.* for his wife, whoſe buſineſs was only to adjuſt the chain; the breadth ¾ of an auln; the workmanſhip of this ſilk is therefore between ⅓ and ⅛ of the groſs value. I ſaw others working plain ſilks, in which the women weavers earned 18 to 24*ſ.* a day, and men 30*ſ.* They have alſo a fabric of ribbons, of which I bought ſpecimens, but they are beyond compariſon dearer than the ribbons of Coventry. We were told that ſilk at Tours employed two thouſand people, but I believe the number is much exaggerated.

They have ſome woollen fabrics of no great account.

They have alſo, as at Chateaurault, many cutlers, who make knives and ſciſſars of a higher price and much better; the ſpecimens I bought appear to be cheap. Nails are an article alſo which gives employment here; I found that a middling hand would make about one thouſand per diem, for which number he was paid 25*ſ.* It is to be noted, that a day's work in all fabrics means fifteen or ſixteen hours (except the time taken for meals) common labourer 10*ſ.* and food.

The woollen manufacture of common ſtuffs is, by ſome accounts given us, more conſiderable than that of ſilk.

AMBOISE.—There is a fabric of ſteel eſtabliſhed here by the Duke de Choiſeul; in it are made axes, hoes, files, &c. They ſay that two hundred men are employed, but I ſaw no ſigns of more than one hundred; they work with charcoal, and alſo with coals from the vicinity of Nantes. They have alſo a ſmall manufacture of buttons, another of woollen cloth for cloathing the troops, which, however, did not take root; there is at preſent one of coarſe woollen ſtuffs, for the uſe of the lower people: theſe fabrics ſhew how foſtering and powerful is the hand of a prime miniſter, in fixing what without him would never be fixed at all; had this Duke continued in power, Amboiſe would ſoon have become a conſiderable city.

BLOIS.—A fabric of very beautiful gloves, which employs about twenty-five hands; here is alſo the ſame cutlery as at Tours and Chateaurault; and they make liquorice cakes for coughs, &c. as at Pontefract.

BEAUVAIS.—This is one of the manufacturing towns of France that ſeems the moſt briſk and active in buſineſs. I viewed the tapeſtry fabric, of which I had ſeen ſome fine ſpecimens in the palace at Fontainbleau; their fineſt works are in ſilk as well as in worſted; they employ one hundred and fifty hands, and have another fabric connected with this in La Marche.

I viewed the calico printing-houſe of Meſſrs. Garnierdans and Co. which is upon ſuch a ſcale as to employ ſix hundred hands conſtantly; there is no difference between this fabric and ſimilar ones in England, and all the patterns I ſaw were very common, ſeeming not to aim ſo much at elegance or nicety of execution, as at the diſpatch of a large undertaking, yet Paris is their principal demand; they print a great quantity of Indian calicoes; their madder is from Alſace. There are three other manufactures in the town, and all four employ about one thouſand eight hundred hands; but the chief fabric is the woollen, which employs ſeven or eight thouſand hands in the town and the adjacent country. They make, under various denominations, coarſe ſtuffs for the cloathing of the country people, for men's jackets and women's petticoats, &c. a truly uſeful and important fabric, which works only French wool, and in general that of the country. There are alſo ſtocking engines at work.

ST. GOBIN.—The fabric of plate glaſs here is by far the greateſt and moſt celebrated in Europe; the incloſure is great, and the buildings are on a vaſt ſcale; one thouſand eight hundred men are employed on the works, and in the proviſion, &c. of wood.

I was ſo fortunate as to arrive about half an hour before they began to run; there is a vaſt furnace in the centre of the building containing the pots of melted metal, and on each ſide of it a row of ovens with ſmall furnaces for caſting. An immenſe table of caſt copper, as I judge by my eye (for I did not care to meaſure any thing) twelve feet long and eight broad, by five inches thick, ſtands at the mouth of the annealing oven, heated by a furnace on each ſide of it. When every thing is ready for running the glaſs, a comis enters, the doors are bolted, and ſilence is proclaimed by one of the men ſtriking an iron bar on the ground; if any perſon ſpeaks but a word after this, he is fined heavily. The furnace, in which is the melted glaſs, is then opened, and the pots of eighteen inches diameter are drawn out; two men, receiving it upon a ſort of barrow, wheel it to the table above-mentioned, where an iron crank ſuſpended from a windlaſs is fixed, and hoiſting the metal, is emptied on to the table. A great copper roller is puſhed over it, moving on two ſtrips or bars of iron or copper, the thickneſs of which determines that of the intended plate of glaſs, for the pot diſcharging its contents between them, and the roller brought gradually over it, which flattens by its great weight the metal to the thickneſs of thoſe bars; the glaſs is then puſhed forward from the table into the oven heated to receive it for annealing, or cooling gradually, to prevent cracking. The dexterity, coolneſs, freedom from confuſion, with which every thing is done, was very pleaſing.

The grinding houſe is great; the whole of that operation is performed by hand. The motive for eſtabliſhing this manufacture here, in a ſituation by no means convenient for navigation, though the diſtance is not great, was that alone of the plenty of wood. It is in the midſt of a great foreſt belonging to the Duke of Orleans, hired by the company that carried on the manufacture. All the fuel employed is beech wood, to which circumſtance they attribute the ſuperiority of the French glaſs to that of England.

ST. QUINTIN.—They make here linen, cambric, and gauzes, fabrics that ſpread all over the country; for all common goods they uſe the flax of the country, but for fine ones that from Flanders.

CAMBRAY.—They make gauzes, *cleres*, and ſome fine cambrics, called *batiſtes*.

VALENCIENNES.—Laces are here and in all the villages around a very conſiderable manufacture; that of thirty to forty lines breadth, for gentlemen's ruffles, is from 100 to 216 livres (9l. 9s.) an auln, with all other prices lower; a pair of ruffles and a frill to 16 louis; the quantity for a lady's head-dreſs from 1000 livres to 2400 livres. The poor women who do this exquiſite work do not earn more than 20*s* a day, or at the utmoſt 30*s*. The fine cambrics are all woven in cellars for humidity of atmoſphere.

LILLE.—This is one of the moſt manufacturing, commercial, and induſtrious towns in France; there is a *manufacture royale* of fine cloths made of Spaniſh wool. Three calico-printers' houſes, but not upon a very great ſcale. Their greateſt trade is that of camblets, which employs many hands; they are made of the long combing wool of Holland, Germany, Flanders, and what they can get from England, this being the fabric which uſes more Engliſh wool than any other in France. They have a cotton fabric of ſtuffs for linings, &c. another of blankets; alſo one of ſilk ſtuffs, which the proprietor refuſed to let me ſee, the only inſtance of the kind I met with in the courſe of the journey; one may fairly conclude that he had nothing to ſhew, inſtead of the ſecret he pretended to; add to theſe a fabric of porcelain.

ST. OMERS.—There is a manufacture of worſted ſtockings, alſo of a kind of ſtuff called *pannes*, but the quantity not conſiderable. Much wool is ſpun.

ARRAS.

ARRAS.—The only fabric of any conſequence is that of coarſe thread laces, which find a good market in England.

BEAUVAL.—A conſiderable manufacture of coarſe hemp and linens, ſacking, &c.

AUMALE.—A fabric, of no great conſequence, of coarſe woollens for the wear of the common people.

ROUEN.—The Mancheſter of France. One of the moſt commercial and manufacturing towns of the kingdom. They ſay, that at preſent the velours and *cotton toiles* are the moſt flouriſhing. The fabrics ſpread over all the country, they admit the velverets of England to be much cheaper, but aſſert their *paſmentiers* of ſilk and cotton mixed, to be cheaper than any ſimilar fabric in England; they have alſo ſome woollens, but none fine, or deſerving particular notice. Aſſerted here that ſpinning cotton employs 50,000 perſons in Normandy.

HAVRE.—Cotton 260 livres the quintal. The duty on the export of French cotton rather more than 2d. per lb.

PONT A DE MER.—Viewed the *manufacture royale* of leather here, having letters to Monſieur Martin the director. It conſiſts of a conſiderable tannery and curriery; there are ninety-ſix fats for tanning, and eighty workmen are employed. I ſaw eight or ten Engliſh curriers; there are forty of them.

The price of raw hides from the butcher is at preſent 10 to 12*ſ.* a lb.; a year ago only 6½, which was the price for three or four years paſt; the riſe they attribute to an arret of the parliament, prohibiting the killing any cow calf, which has made the ſkins dear, and the high price of meat has had a yet greater effect.

Foreign hides from Buenos Ayres are now 18*ſ.* the lb. that were 10*ſ.*; they have many from Ireland, which would be the beſt, if it was not for the careleſs way of cutting them more than neceſſary in killing. The Iriſh are the largeſt hides.

The bundle of bark is 30lb. (28 to 32), and the price per one hundred bundles, or three thouſand, is 150 livres, which is about 4l. 4s. a ton; a few years paſt it was at 80 livres; they bark all oak of ten years growth, preferring young to what is old. Some hides they dreſs without lime, in the Jerſey way; they dreſs many hogs' hides, and alſo goats from Sweden. They complain of the exciſe on leather, aſſert that there were once forty tanners in this town, but now not twenty, the declenſion owing to the duty of 3*ſ.* per lb.

CAEN.—They make a great deal of ſilk lace here, alſo cotton and worſted ſtockings.

CHERBOURG.—Near this place is a conſiderable fabric of blown plate-glaſs, which Monſieur Depuy, the director, was ſo obliging as to ſhew me; about 350 workmen are employed, but before the American war there were 600; the works at Cherbourg have hurt it, as well as grubbing up the foreſt belonging to Monſieur. It is now ſent to Paris to be poliſhed.

BRETAGNE.—*Rennes.*—Some fabrics, but not of conſideration; linen for ſhip-ſails, hats, earthenware, dimities, ſamoiſes, thread ſtockings: ſome years ago one of cotton, eſtabliſhed by Pincjon, author of a pamphlet *Commerce de la Bretagne*, but it was not attended with any ſucceſs, and died with him.

ST. BRIEUX.—Received here ſome information concerning the linen fabric of Bretagne. The merchants and factors chiefly reſide at St. Quintin and Loudeac, ſome at Pontivy and Uzelles; St. Maloes is ſaid to export to the amount of ten millions. The thread is ſpun all over Bas Bretagne and bought up at markets, and woven into linen at thoſe towns and their diſtricts; the loweſt price is 34 to 38*ſ.* the auln; the next 40 to 50*ſ.* and ſome, but little, is made ſo high as 5 livres. The greateſt object in the

fabric is the bleaching to a great degree of whiteneſs, which the Spaniards ſeem only to regard; to do this the manufacturers are forced almoſt to rot it. Among other operations to which they ſubject it, is that of putting it in caſks of four milk for three or four months, but the linen that is only commonly bleached is ſtrong and excellent; the flax is all produced in Bretagne.

BELLE ISLE to MORLAIX PONTON.—Much ſpinning of flax through all this country; the flax of their own raiſing; every farmer enough for the employment of the family; the thread ſells at 30*ſ.* a lb. at Morlaix.

MORLAIX.—Much linen exported; thread ſells at 45*ſ.* the lb.; ſpinning is 12*ſ.* the lb. I was ſhewn ſome fine thread that coſt 3 livres 10*ſ.* the lb. and which will make cloth of 4 livres 10*ſ.* the auln. The linen trade is now very dull, but flouriſhed greatly in the war; the linens here are *toille de menage*; that exported to Spain is here called *toille de leon*, and is whitened till rotten.

NANTES.—Here I am aſſured that the linen fabric of Bretagne amounts to twenty-four millions.

Examine ſome of theſe linens that are for the Cadiz market; the fineſt of all is 4 livres 7*ſ.* the auln of Bretagne of 50 inches, and three fourths wide; it has eighty threads in an inch Engliſh: 3 livres 7*ſ.* the auln; 25½ French inches broad, ſeventy threads to the inch Engliſh; they are very white and much beaten.

A conſiderable fabric eſtabliſhed near this city in an iſland of the Loire, for caſting and boring cannon; the coals coſt here 34 livres the 2000lb.; they come by the river from the neighbourhood, and they calculate that the new ſteam-engine, now erected, will conſume 100 livres a day.

Viewed the cotton manufacture of Monſieur Pellontier, Bourcard and Co. the Pruſſian Conſul, which employs about two hundred hands; he ſpins (by jennies), weaves and prints the cloth, but the conductor of it ſays, that the Swiſs fabrics of the ſame ſort are one-third cheaper, owing to their employing much more machinery, and to their men working far better and harder. Price of the beſt St. Domingo cotton at preſent 180 livres to 200 livres per quintal.

ANJOU.—*Angers.*—All alive with ſtocking engines, and an infinity of ſpinning wheels; the ſtockings are moſtly of thread, but ſome of wool; they have ſpinning jennies for cotton; a fabric of ſail cloth, and ſome calico printing.

MAINE.—*Le Mans.*—Here are étamines, linen, ſtockings, bleach grounds, &c. &c.

NORMANDY.—*Allençon.*—Great quantities of hemp ſpun and manufactured in all this country into table-linen, ſheets, ſhirts, &c.

GACE.—Much ſpinning of flax, which is brought from Flanders, the price 1 livre 16*ſ.* the lb. and ſell it ſpun at 4 livres 10*ſ.* but varying much according to the fineneſs; a woman ſpins a pound in a week.

ELBOEUF.—The fabrics here are chiefly cloths, and by far the greater part are of Spaniſh wool, a ſmall proportion of that of Rouſſillon and Berri. The wools of Segovia and the Leonoiſe are at 5 livres 12*ſ.* the lb. and 4 livres 10*ſ.* *poid de Viſcount.* It is ſpun in the country for twelve leagues around; the price of ſpinning is from 10 to 13*ſ.* the lb. average 11*ſ.* for which they ſpin the fine Spaniſh to the length of 825 aulns of Paris; a good ſpinner will do a pound in a day, but that is beyond the medium; very few however demand two days. The carder has 6 to 8*ſ.* a lb.

Monſieur Grande has ſome jennies, by which a woman ſpins the work of eight.

DARNETAL.—The chief fabrics here are cloths, à façon d'Elbœuf, eſpagnolettes, flannels, ratteens. Of theſe the principal are the eſpagnolettes of five eighths breadth,

and price 5 liv. 10*s.* to 9 liv. 10*s.* for men's waiſtcoats, ladies' habits, &c. The wool is in general from Spain and Berri, but not the Spaniſh of the firſt quality; the Berri is as good, or better than the Spaniſh for this fabric. The ſpinners are paid 14 to 16*s.* the lb. for which they ſpin it to the length of ſix hundred aulns. Carding is 2*s.* the pound, and no other than carding wool is uſed here. The weaver is alſo paid by the pound, at 15*s.* therefore the weaving and ſpinning is nearly the ſame price; many of all theſe hands are in the country. The maſter manufacturers here aſſert, that their fabrics are as good and as cheap as ſimilar ones in England, but they ſell none thither.

LOUVIERS.—Monſieur Decretot's fabrics of fine cloths at this place, are, I believe, the firſt in the world; I know none in England, nor any where elſe, that can be compared with them; the beauty and the great variety of his productions remind me more of the fertility of Mr. Wedgewood's inventions, than any other fabric I have ſeen in France. Monſieur Decretot brings out ſomething new for every year, and even for every ſeaſon.

The common cloths of this place are well known; but Monſ. D. has now made ſome of the fineſt and moſt beautiful cloth that has ever yet been ſeen, of the pure undyed Perſian, or Vigonia wool, if it may be ſo called, for it is not produced by a ſheep; this riſes to the vaſt price of 110 liv. the auln, $\frac{5}{4}$ths wide; the raw wool is 19 liv. 10*s.* the pound, or thrice as dear as the very fineſt Spaniſh: other fabrics he has made of the wool of the chamois from Perſia. The fineſt cloth he makes of common wool unmixed, is of Spaniſh, at 6 liv. 4*s.* the pound, and the price 33 liv. the auln, $\frac{5}{4}$ths broad. *Rayé en ſoie marbre* $\frac{5}{8}$ths broad, 32 liv. *Caſſorine rayé en ſoie*, ſame price and breadth. Of all theſe curious fabrics, as well as the wools they are made of, he very obligingly gave me ſpecimens.

View the cotton mill here, which is the moſt conſiderable to be found in France. They ſpin to the length of forty thouſand aulns per pound, machinery in this mill ſaves in labour in the proportion of three hands doing the work of eight. It is conducted by four Engliſhmen, from ſome of Mr. Arkwright's mills. This mill coſt building 400,000 livres.

Near this town alſo is a great fabric of copper-plates, for bottoming the king's ſhips; the whole an Engliſh colony.

CHAMPAGNE.—*Rheims.*—There are about ſeven hundred maſter manufacturers here, and ten thouſand perſons in the town and the country about it, ſupported by the manufactures. The fabric is not at preſent flouriſhing, and the earnings of carders and ſpinners but one half what they were. The weavers are paid 12 liv. 10*s.* for a piece of 55 aulns, and $\frac{1}{2}$ an auln broad.

They make here razcaſtors, marocs, flannels, burattés, the chain of almoſt every thing of the wool of Champagne; but the reſt of Spaniſh, or that of Berri; and theſe fine carding wools are combed for moſt of the fabrics: they uſe beſides theſe wools much from Bourgogne and Germany, and ſome from Rome, which are very bad, becauſe the ſheep are clipped twice a year, which deſtroys the texture of the wool. The woollens at Rheims amount to ten millions, and the trade of wine four or five millions. There are twenty-four thouſand pieces of woollen ſtuffs annually ſtamped, of fifty aulns each, and at the price of 110 to 120 liv. each.

LUNEVILLE.—Here is a fabric of earthenware, that employs ſixty to ſeventy hands, who earn 20 to 30*s.* a day; but ſome painters to 24 liv. a week. Common plates by no means good, 3 liv. 10*s.* per dozen.

ISENHEIM *to Befort.*—Many fabrics in this country eſpecially calico printing.

BOURGOGNE—*Dijon.*—Many ſtocking engines, ſome ſpinning of cotton, and ſome coarſe cloths made, but nothing of conſequence, for the place does not ſubſiſt by manufactures.

MONT CENIS.—Theſe are amongſt the greateſt iron works in France, and owe their preſent magnitude entirely to Monſ. de Calonne; they were eſtabliſhed by Mr. Wilkinſon from England, in the ſame expedition into France, in which he fixed thoſe on the Loire near Nantes. The iron mine is three leagues off, but thoſe of coal on the ſpot. They caſt and bore cannon on the greateſt ſcale, having five ſteam engines at work, and a ſixth building: they have iron roads for the waggons, make coak of coal, a l'Anglois, &c. &c. Here is alſo a pretty conſiderable cryſtal glaſs work, in which two Engliſhmen are ſtill left. There is no navigation, as neceſſary as coals or iron; but the Charolois canal is within two leagues, and they hope it will come here.

AUTUN.—No manufacture.

BOURBONNOIS—*Moulins.*—No fabric.

AUVERGNE—*Riom.*—No fabric, except what cotton is ſpun, &c. in the general hoſpital.

CLERMONT.—In the mountains at Royau, &c. wool ſpun 40*ſ.* lb. the fineſt 50*ſ.* ſpinning 1lb. coarſe wool 10*ſ.* fine ditto 12 to 16*ſ.*

MARSEILLE.—Price of cotton, 1789, St. Domingo, 130 livres the quintal.

Martinique,	120
Salonica,	95 to 100
Smyrna,	100 to 115
Cyprus,	100 to 105
Acre,	100 to 110

This place makes ſoap to the amount of 20 millions a year: the oil from Italy, the Levant, and Tunis.

Caſtile,	36 livres the quintal
Blue,	36½
White,	37

The trade of Marſeilles to the colonies not near equal to that of Bourdeaux.

LYONS.—The import of raw ſilk into all France one million of lb. of 16 oz. The crop of all France the ſame, but not ſo good by $\frac{1}{4}$ of the price. The price of good ſilk 25 to 30 livres. The fabric here $\frac{1}{4}$ of all the kingdom, and its exports in manufactured goods the weight of one million of pounds. There are 12,000 looms, each employing five perſons, or 60,000, who earn on an average 25*ſ.* a day. The men earn by wrought ſilks 45 to 50*ſ.*; but on plain ones 30*ſ.* Of the fabric here $\frac{2}{3}$ of the value is raw ſilk, and $\frac{1}{3}$ labour. Throughout the kingdom in the hemp and flax fabrics $\frac{2}{3}$ labour, and $\frac{1}{3}$ raw material. In the laſt 20 years the manufacture here has augmented very little, if at all.

They have a prohibitory law againſt any loom being erected without the city to a certain diſtance; and at Amiens there is a prohibition againſt working woollen ſtuffs by lamp-light, for fear of greaſing the ſtuffs, yet here the fineſt ſilks are thus wrought.

The advantageous ſituation of Lyons, in reſpect to its two great rivers, has no effect on the tranſport of its manufactures, for all go by land to Bayonne, Bourdeaux, and Straſbourg, &c. They have here an eſtabliſhment of Genevois callico printers, to the number of ſix or ſeven hundred.

St. ETIENNE EN FORET.—The iron fabrics now very flouriſhing, coals almoſt for nothing, and the ſame at St. Chaumond; a great ribbon trade alſo; forty pieces are made at a time by a machine turned by one man.

The following details of French manufactures will explain ſeveral of them: they are extracted from the new Encyclopedie, in quarto, now publiſhing at Paris.

Manufactures of Picardy.

	Looms.	Pieces.	Price. liv.	Total Value. liv.
Camelot poil, — —	350	3,000	380	1,140,000
Camelot mi ſoie, — —	300	3,000	160	576,000
——— laine, — —	450	3,500	120	420,000
Baracans, &c. — —	700	12,000	130	1,560,000
Prunelles ſoie, — —	1,000	10,000	180	1,800,000
——— laine, — —	650	7,800	115	897,000
Panne poil, — —	800	7,000	240	1,680,000
——— laine, — —	950	10,000	120	1,200,000
Velours, moquettes, trippes damas	450	4,500	180	810,000
Alençons, etamines, vires, gazes	300	3,600	200	720,000
Serges, minorques, turquoiſes, &c.	1,200	14,400	180	2,592,000
Tamiſes, duroys, grains d'orge,	400	6,000	100	600,000
Serges d'Aumale, Londres, &c. —	2,000	16,000	100	1,600,000
——— de Blicourt, Crevecœur, &c.	1,500	24,000	15	625,000
Draperies fines, — —	100	1,200	480	576,000
——— communes, — —	600	7,000	60	420,000
Velours de coton, toileries, &c.	450	6,000	150	900,000
Totals.				
Etoffs de laine, — —	12,200	139,600		18,116,000
Bas douzaines de paires, — —	8,500	220,000	14	5,200,000
Toiles, — — —	4,300	60,000	50	3,000,000
	25,000			26,316,000

Wool

Wool consumed.

	lb.		liv.	liv.
Fleece.				
Of the country, — —	3,220,000	at 22*s.*	3,520,000	
From Holland, — —	180,000	at 40*s.*	360,000	
—— England, — —	200,000	at 32*s.*	320,000	
—— Germany, — —	100,000	at 22*s.*	110,000	
	3,700,000		4,310,000	
Spun.				
Turcoin, — — —	60,000	8 liv. 10*s.*	510,000	
Germany, — — —	100,000	7 liv.	700,000	
Poil de chevre, — —	220,000	5 liv. 10*s.*	1,200,000	
Soie, — — —	20,000	35 liv.	700,000	
				7,120,000
Spinning of 3,680,000lb. —		—	—	4,710,000
—— at 6 or 7*s.* the lb. of thread of all sorts at 9 livres the piece -				1,350,000
Weaving 150,000 pieces at 28 livres the piece, 12,000 looms making each 14 or 15 pieces, and gaining about 280 livres per annum -				3,120,000
Dyeing the materials spun and not spun, — — —				190,000
Merchant's profits on raw materials and manufacturers, —				1,300,000
Value of 150,000 pieces going from the hands of the manufacturer,				17,000,000
Drugs, colours, &c. — — — —				500,000
Nett profit, — — — —				2,000,000
				20,400,000

Draperies Fines.

	livres.
Spanish wool 330 bales of 200lb. at 5 liv. per lb. —	330,000
Sixty-six lb. of wool in a piece of broad cloth, 1000 pieces, and consume 66,000lb. of wool; the piece of 24 aulns at 25 liv. 600 liv. and for 1000, — —	600,000

Cotton Velvets.

	livres.
Cotton 40,000lb. at 48*s.* —	96,000
Spinning, — —	96,000
Fabrication of 2,860 pieces at 14*s.* — —	60,000
Dyeing, &c. — —	82,000
Profits, — —	36,000
	370,000

Linen, Thread, and Cordage.

	livres.
Hemp for linen, 4, 5, or 600,000 raw, at 30 liv. the 100, —	1,350,000
Reduced to 3,000,000 lb. at 7*s.* spinning, —	1,050,000
Flax 2,000,000 lb. at 40 liv. the 100 —	800,000
Reduced to 1,200,000 lb. at 10*s.* spinning, —	600,000

	livres.
Weaving, 4,300 looms at 90 liv. to 160 liv. —	400,000
Seventy thousand pieces at 65 liv. materials, —	4,200,000
Hemp and labour on thread, packthread, and cordage	2,000,000
	6,200,000

Boneterie.

Boneterie.

	livres.
Wool of the country, 800,000lb, at 25*s.* —	1,000,000
—— Holland, 250,000 at 40*s.*	500,000
Flax —— 100,000 at 10*s.*	50,000
Cotton —— 2,500 at 40*s.*	1,000
Materials —	1,555,000
Labour —	3,125,000
Profit —	520,000
	5,200,000

Recapitulation.

	livres.
Total value of raw materials,	13,870,000
Labour and profit, —	19,000,000
	32,870,000
50,000 workmen at 140 liv.	7,000,000
50,000 women at 70 liv.	3,500,000
150,000 children at 40 liv.	6,000,000
	16,500,000
Profit —	2,500,000
	19,000,000

Draperies of the Generality of Rouen

		Price per aulne.	No. Pieces.	Value. — liv.	
Elbœuf,	Draps, - -	16 liv. 10*s.*	18,000	8,910,000	
	Royales, - -	10 liv.	150	54,000	
	Calmoucs, - -	16 liv.	80	38,400	
	Alpagas, - -	9 liv.	100	36,000	
			18,330		9,038,400
Louviers—	draps fins, - -	24 liv.	4,440		3,196,800
Rouen,	Draps, - -	14 liv.	80	33,000	
	Ratines, - -	12 liv.	120	51,840	
	Espagnolettes croisees,	5 liv.	760	589,100	
	—— —— lisses,	4 liv. 10*s.*	180	64,800	
	Flanelles, - -	2 liv. 10*s.*	2,690	282,450	
			3,830		1,021,190
Darnetal,	Draps, - -	18 liv.	370	199,800	
	Ratines, - -	12 liv. 10*s.*	380	171,000	
	Espagnolettes croisees,	5 liv.	4,320	1,630,000	
	—— —— lisses,	4 liv. 10*s.*	800	309,600	
	Flanelles, - -	3 liv.	1,350	160,000	
			7,300		2,470,400
					15,726,790

The

The draperies of Darnetal may be taken on an average at 2,500,000 livres, blankets not included, which are 4 or 500,000 livres. If every thing is included, the lainages of the Generality will rise to 18,000,000 livres, and linens to the double.

Manufactures of Champagne in 1782, taken by Monsr. Taillardat, Inspector of that Province.

Places.	*Denominations.*	Price per auln.	No. Pieces.	Value.
Chalons.	Espagnolettes, -	3 liv. 10*s.*	1,800	226,800
Quippes.	Serges drapées, -	1 16	3,000	322,600
-	Draps de Silesia, -	4 10	11,500	2,300,000
	Dauphins and Marocs,	1 5 to 3 5	27,500	3,100,000
	Perpetuelles, - -	3 12	40	7,000
Reims & Environs.	Droguets, etamines, burats, voiles, - -	5 5 to 3 5	22,000	2,800,000
	Imperialles flanelles, -	2 to 4 5	500	830,000
	Bluteaux, - -	17 to 18 p.	3,960	67,600
	Couvertures, - -	20 p.	30,000	600,000
	Toiles de Chanvre, -	1 4*s.*	2,300	110,000
	Dauphins and Marocs, etamines, flanelles, ferges,	1 5 to 3 10	4,500	450,000
Rhetal & Environs.	Draps façon de Sedan, -	12 liv.	30	26,400
	Toiles de chanvre, -	1 4	420	20,200
	Toiles de coton and basins,	1 to 5 liv.	56,000	4,000,000
	Serges, frocs, &c. -	2 15 to 3 10	3,200	310,000
Troyes & Environs.	Draps and ratines, -	6 to 10 10	550	122,400
	Espagnolettes, - -	4 liv. 5*s.*	1,000	140,000
Chaumont, &c.	Droguets, - -	1 10	1,500	100,000
Vancouleurs.	Siamoises, toiles de coton, fil, &c. - - -	1 15 to 3 10	1,300	180,000
			174,100	15,713,000

Boneterie en Coton.

Looms.—Troyes, - - - -		400
Arcys and Aube, - - -		280
In thirty villages near ditto, - -		300
Vitry la Francois, - - -		24
Vancouleurs, - - - -		30
Chalons, - - - -		12
		1046

Each loom makes per annum one hundred dozen pairs of stockings or bonets, worth one with another 24 livres, or 104,600 dozen, and 2,510,400 livres, of which $\frac{2}{3}$ds are labour and profit.

In

In Wool.

About twelve thouſand dozen pairs of ſtockings and bonets at Chaumont, Vignory, Joinville, Vitry, and Chalons, at 50 livres the dozen, or 360,000 livres *.

Boneterie in all France.

	looms.
Boneterie of ſilk,	17,500
Wool,	24,500
Cotton,	14,500
Thread,	7,500
Produce of which 55 to 60,000,000 livres,	64,000

Lace.

The laces they make at Valenciennes, employ about 3600 perſons, and are an object of 400,000 livres, of which the flax is not more than $\frac{1}{10}$. The thread ſells from 24 livres to 700 livres the pound. The lace-makers at Dieppe earn 7 or 8*ſ.* a day, a few 10 to 15*ſ.* There are eight or nine thouſand point-makers at and about Alençon. At Argentan they work to 500,000 livres; and in all France about 1,200,000 livres.

Silk.

In 1780, there were in Lyons one thouſand eight hundred to two thouſand looms conſtantly employed on ſtockings, making one thouſand five hundred pairs a day, at 9 livres, or 4,000,000 livres per annum for 450,000 pairs.

	livres.
Raw material $\frac{1}{2}$,	2,000,000
Labour,	1,600,000
Profit $\frac{1}{10}$,	400,000
	4,000,000

In all France, in 1756.

	looms.
Lyons,	18,000
Niſmes,	3,000
Tours,	1,350
Paris,	2,000
	24,350

Manufacture of Lyons in 1768, extracted from the regiſter of the Capitation and Vingtiemes.

		Ditto in 1788.	
Merchants,	410		
Maſter workmen,	4,202	Looms employed,	9,335
Looms,	11,007	Ditto not employed,	5,442
			14,777

Rent of their houſes 811,667 livres. Total value of the fabric 60,000,000 livres, of which 18,000,000 livres labour. Weight of ſilk 2,000,000lb.

Silk and iron in the Forez of the Lyonnois.

* *Enc. Meth. Man and Art.* t. i. 10.

The clincaillerie of St. Etienne 4,000,000 lb. of iron, at 21 livres the 100, price wrought 60 livres the 100.

The manufacture of arms for export conſumes 1,200,000lb. 60,000 muſkets and piſtols.

Ribbons amount to 9,000,000 livres.

Woollens at Lodeve in Languedoc.

	pieces.		livres.
Griſblancs for the troops,	6,000	at 6 liv. 10ſ.	624,000
Blues and reds,	2,000	at 9 liv. 10ſ.	304,000
Draps,	1,000	at 8 liv. 10ſ.	136,000
Pinchinats,	3,000	at 6 liv. —	288,000
Croiſees,	300	at 9 liv. —	43,200
Tricots,	1,200	at 2 liv. 8ſ.	92,800
Ratines,	100		12,000
	13,600		1,500,000

Total French exportation to the Levant 18,000,000 livres, of which 12,000,000 livres in draperies and bonets façon de Tunis.

Clermont.

Account of a bale of 20 half pieces of *Londrins ſeconds.*

Wool, 550 lb. at 38ſ.	1,045
Liſieres (liſt,)	50
Oil,	36
Spinning,	270
Weaving,	150
Soap,	45
Dyeing,	120
Cocheneal,	198
Total including all other charges,	1,914

Account of 100 bales.

	livres.
Wool,	550,000
Oil, ſoap, and drugs	150,000
Carriage, commiſſion, and profit,	110,000
Labour,	390,000
	1,200,000

Woollens at Sedan.

	liv		liv.
Wool,	376	to	476
Hair,	13	to	30
Oil,	12	to	14
Soap,	4	to	4½
Linen	3	to	3
Spinning,	60	to	90
Weaving,	34	to	53
Dyeing,	50	to	100

A Piece of black Superfine.

	liv.	*s.*	liv.	*s.*
Wool for the chain, 42¾ *en ſurge*, at 4 liv. 8*ſ.*	188	2	475	4
Ditto for the trame, 65¼ *en ſurge*, at 4 liv. 8*ſ.*	287	2		
Carriage of 108lb. wool,			5	8
Spinning,			87	18
Weaving 105 aulns, meaſ. de Brabant, at 10*ſ.*			52	10
Dyeing,			100	0
Wear and tear of implements,			14	0
Houſe, clerks, &c.			14	0
			749	

	liv.	*s.*
42¾ aulns, at 23 liv. 10*ſ.*	1004	12
	749	0
Manufacturer's profit,	255	12

In 1767.

Looms,	713
Pieces,	3,556
Spaniſh wool,	864,105lb.
Wool or hair for ſelvages, &c.	133,751lb.
Oil,	161,158
of which olive,	144,373
——— coleſeed,	19,879

Linen for envelopes, 1,188 pieces of 28,550 aulns.

Many intereſting particulars concerning the fabrics of Normandie, are found in the *Obſervations de la Chambre du Commerce de Normandie, ſur le Traité de Commerce entre la France & l'Angleterre.*

Linens.

In the generality of Rouen are made, in an average year, 500,000 pieces, worth, as they paſs from the hands of the manufacturer, 45 to 50,000,000 liv. of which ⅓ds are labour and profits.

Woollens.

The cloths and other ſtuffs of Louviers, d'Elbœuf, Rouen, Darnetal, Andley, Evreux, and other places in the generality of Rouen, may be eſtimated in a common year at 34,000 pieces, which are worth at the conſumer's price about 20,000,000 liv. half of which is raw material, and half labour and profit.

Cotton.

The *boneterie en coton* at Rouen, amounts to 18,000 dozen of pairs of ſtockings and caps, and as many more in the country, the value of the whole 1,600,000 liv. to 2,000,000 liv. ⅓ds of which are labour and profit. The *baues tamerie* of cottons alone, employs in France 15,000 looms.

Sundries.

The other articles of manufacture in Rouen and the generality, ſuch as ribbons, ſundry woollens, tanneries, earthenware, plating, &c. will raiſe the preceding ſums to 80 or 90,000,000 liv. in a common year, conſequently theſe ſundries amount to 16 or 18,000,000 liv. and half of all on an average is labour and profits.

Louviers fabricates annually 4400 pieces of cloth.

Elbœuf fabricates 18,000 pieces of cloths and ſtuffs.

Darnetel makes 7800 pieces of cloths, ratines, eſpagnolettes, and flannels, without including couvertures.

Viſe makes eight thouſand pieces of cloth, but the fabric is much fallen; for thirty years together it made twenty-ſix thouſand pieces per annum.

Valognes and Cherbourg were once famous for their cloths, and fabricated to the amount of near four thouſand pieces, at preſent they make three or four hundred.

Liſieux, and an hundred pariſhes in the environs, fabricates fifty or ſixty thouſand pieces woollen ſtuffs called frocs, flannels &c.

Earnings of Manufacturers.

1787—PICARDIE.—*Montreuil.*—By ſtockings, 20*ſ.* a day.

Abbeville.—By cloths, &c. 25*ſ.*

Amiens.—Cloths, 18*ſ.* to 25*ſ.* to 40*ſ.*

Breteuil.—Iron, 30*ſ.*

ORLEANOIS.—*Orleans.*—Woollen caps, men 26*ſ.* boys 7*ſ.* ſpinners 14*ſ.* carders 31*ſ.* ſugar refiners 26*ſ.*

BERRY.—*Chateauroux.*—Woollens, men 20*ſ.* boys 8*ſ.* ſpinners 8*ſ.*

LA MARCHE.—Women and girls employed in keeping cattle, ſpin wool and hemp; for thread of the latter they have 3*ſ.* the pound, for coarſe, 6*ſ.* for fine; for wool 3 to 4*ſ.* the pound; they muſt work very hard in the fields to ſpin one pound of coarſe thread

in a day; when they work for themſelves they give their yarn and thread to a weaver, who makes the ſtuff at 5 or 6*ſ.* the auln.

LIMOSIN.—*Limoges.*—Stuffs and china men 17*ſ.* boys 9*ſ.* weavers are paid 5 or 6*ſ.* the auln, and earn 15*ſ.* a day; in the porcelain fabric ſome earn 120 liv. a month.

Brive.—Silks, gauzes, and cotton men 27*ſ.* boys 5*ſ.*

GUIENNE.—*Cahors.*—Woollens, men 20*ſ.* ſpinners 8*ſ.*

Montauban.—Silks, women 10*ſ.* woollens, men 25*ſ.* ſpinners 8*ſ.* combers 30*ſ.*

St. Martori.—Woollen ſtuffs, men 24*ſ.* ſpinners 8*ſ.* women 8*ſ.*

Bagnere de Luchon.—Cobalt, men 27*ſ.*

LANGUEDOC.—*Niſmes.*—Silks, men 20 to 40*ſ.* a man will make a pair of ſilk ſtockings in a day if he is a good hand, he is paid 40*ſ.* for them, out of which he muſt pay for the engine and oil for his lamp; the engine coſts 4 to 500 liv. women alſo work at it, common earnings of either, by means of this tool, 30 to 35*ſ.*

Gange.—Silk ſtockings, men 32*ſ.* and ſome particular hands, by making the fineſt ſtockings, up to 36 liv. the pair, will earn 5 liv. a day.

Lecloat.—Cloths, men 28*ſ.* ſilk ſtockings 35*ſ.* cotton 35*ſ.* ſome in cotton are ſaid to earn even to 50*ſ.*

Beg de Rieux.—Londrins, men 18*ſ.* ſilk ſtockings 35*ſ.*

GUIENNE.—*Pau.*—Linen, men 24*ſ.* from 18 to 40*ſ.* they are paid 20*ſ.* for weaving a handkerchief.

Navarens.—Flax, a pound before ſpinning ſells for 30*ſ.* ſpinning it to a middling degree of fineneſs adds 30*ſ.* more, or 3 liv. in all, but much ſpinning improves it only 20*ſ.* a good hand will ſpin a pound a day, in common a woman earns 7 to 12*ſ.* weavers 15 to 30*ſ.* generally 20*ſ.*

Bayonne.—Spinning flax, 10 to 11*ſ.* a day.

Airé.—Linen 15 to 25*ſ.*

Leitour.—Tannery 15 to 30*ſ.*

Agen.—Hemp weavers 15 to 22*ſ.*

TOURAINE.—*Tours.*—Silk weavers, men 30*ſ.* boys 20*ſ.* women 21*ſ.* nailors, 25*ſ.*

Amboiſe.—Steel, men 36*ſ.* women 18*ſ.*

ISLE OF FRANCE.—*Beauvais.*—Tapeſtry, men 40*ſ.* boys 5*ſ.* ſome to 100*ſ.* calico printers 10 liv. to 25 liv. a week, none under 10 liv. women pencillers 20*ſ.* a day, pattern drawers to 150 louis a year, ſeveral at 100, woollens 20 to 30*ſ.*

PICARDIE.—*St Gobin.*—Glaſs, men 20 to 40*ſ.*

St. Quintin.—Linen, cambric men 20*ſ.* ſpinners 15*ſ.* and even to 20*ſ.*

Cambray.—Gauzes, cleres, &c. 20*ſ.* in general, ſome 30, and a very few to 40*ſ.*

Valenciennes.—Lace makers 20 to 30*ſ.* for the fineſt.

Lille.—Woollen ſtuffs 20 to 35*ſ.* many to 40*ſ.*

St. Omers.—Stockings 22*ſ.* ſpinning wool, women 9*ſ.*

Airé.—Spinning wool 9*ſ.* to 10*ſ.*

Araſs.—Laces, women earn 12 to 15*ſ.* a day, ſtockings 24*ſ.* to 30*ſ.*

Beauval.—Weavers of linen 30*ſ.* ſpinners 3 pound, at 4*ſ.* per day, or 12*ſ.* if good hands.

Aumale.—Weavers 22*ſ.* women ſpinners 7*ſ.*

Rouen.—Weavers 30*ſ.* by the piece, that is 24 to 40*ſ.* ſpinners 8 to 12*ſ.*

Yvetot.—The poor here, and the ſame at Rouen, buy their cotton, ſpin it, and then ſell the yarn; at preſent they give 4 liv. 5*ſ.* per pound for the cotton, and when ſpun it

it at 5 liv, 10 *ſ.* to 5 liv. 15 *ſ.* and 6 liv. and earn in general about 12 *ſ.* a day; children begin at ſix or ſeven years old. Very little wool ſpun, as the whole country is employed on cotton.

Havre.—The country people can buy their cotton at 300 liv. the quintal, which is to the quintal of Paris as 108 is to 100; at Rouen it is 106; they have 40 *ſ.* a pound for ſpinning it, and a woman earns 16 *ſ.* a day. I was here aſſured, that none of the cotton mills of France were on a great eſtabliſhment, as I ſhould find when I viewed them; much talked of only at a diſtance.

Pont a de Mer.—In the tannery and curriery here the men earn from 24 *ſ.* to 4 liv. a day.

Caen.—Silk lace, 15 *ſ.* women, ſome ſo high as 30.

Bayeux.—Lace of ſilk and thread, women earn in common 10 to 12 *ſ.* but ſome 20 to 24 *ſ.*

Cherbourg.—Blown plate glaſs, blowers 40 to 50 *ſ.* loweſt workmen 24 *ſ.*

BRETAGNE.—*Rennes.*—Sundries, 25 *ſ.* a day.

St. Bricux.—Spinning wool 8 *ſ.* to 30 *ſ.* per pound.

St. Quintin, Londeac, &c.—Linen, weavers 9 *ſ.* an auln, and do four in a day of common work, 30 to 36 *ſ.* common wages, ſpinners 10 to 20 *ſ.* but the latter very uncommon.

Ponton.—Many ſpinners do not earn more than 5 *ſ.* a day, 10 hours.

Morlaix.—For ſpinning 12 *ſ.* a pound; and do it in three days beſides family buſineſs.

ANJOU.—Weavers, 8 *ſ.* per auln, and do 3 or 4 a day.

Angers.—Weavers 30 to 35 *ſ.* ſpinners 5 to 8 *ſ.* more by wool than by cotton or flax, one pound of flax in a day for 6 *ſ.*; one pound of fine cotton, three days to a week, and for 30 *ſ.*

MAINE.—*Gueſceland*—Spinning hemp, do half a pound at 10 *ſ.* the pound, but a very good ſpinner will do a pound.

NORMANDIE.—*Alençon.*—8 *ſ.* a day by ſpinning hemp, and 10, and even to 12 and 15, but this is only for the fineſt of 56 *ſ.* the auln.

Gacé.—Spinning flax 9 *ſ.* a day, which is rather more than they gain by hemp.

Elbœuf.—Spinning wool 5½ to 11 *ſ.* weavers 30 to 35 *ſ.*

Darnetel.—Spinning wool 8 to 12 *ſ.* a man carding 20 to 28 *ſ.* weaving 24 to 30 *ſ.*

Louviers.—Spinning wool 12 *ſ.* weavers 24 to 35 *ſ.* and the higheſt wages earned 48 *ſ.*

La Roche Guyon.—Spinning cotton, good ones earn 12 and 15 *ſ.* Spinning hemp 10 to 12 *ſ.* the pound, and one pound in two days.

CHAMPAGNE.—*Rheims.*—For carding and ſpinning, are paid by the chain and gain 6 *ſ.* a day, at preſent 12 *ſ.* when the fabric was flouriſhing, a weaver, that is a good hand, 20 to 25 *ſ.* a day by the piece, but he has to pay a child, if he has none of his own, 3 or 4 *ſ.* out of it.

BOURGOGNE.—*Mont Cenis.*—Forge men 30 to 40 *ſ.*

AUVERGNE.—*Clermont*—In the mountains.

VELLAY.—*Le Puy*—Making lace, earn 4 to 8 *ſ.* a day.

VIVARAIS.—*Pradelles.*—Ditto, 7 or 8 *ſ.* and ſome up to 20 *ſ.*

Earnings.

Average earnings of all the fabrics, of the men 26*ſ.*—Of the women 15*ſ.*—Of ſpinners, 9*ſ.* Theſe earnings are, without any doubt, much under thoſe of ſimilar manufactures in England; where I ſhould apprehend the men earn, upon an average 20d. a-day or 40*ſ*; the women 9d. or 18*ſ.* and ſpinners I have ſhewn (Annals of Agriculture, vol. ix.) to earn 6¼ or 12½*ſ.* The vaſt ſuperiority of Engliſh manufactures, taken in the groſs, to thoſe of France, united with this higher price of labour, is a ſubject of great political curioſity and importance; for it ſhews clearly, that it is not the nominal cheapneſs of labour that favours manufactures, which flouriſh moſt where labour is nominally the deareſt—perhaps they flouriſh on this account, ſince labour is generally *in reality* the cheapeſt, where it is *nominally* the deareſt; the quality of the work, the ſkill and dexterity of performance, come largely into the account; and theſe muſt, on an average, depend very much on the ſtate of eaſe in which the workman lives. If he be well nouriſhed and cloathed, and his conſtitution kept in a ſtate of vigour and activity, he will perform his work incomparably better than a man whoſe poverty allows but a ſcanty nouriſhment. There is doubtleſs great luxury amongſt the manufacturing poor in England; there is little amongſt thoſe of France; this apparent evil has grown ſo regularly with the proſperity of Engliſh fabrics, that I am not too ready to conſider it ſo great an evil, as to demand any laws or regulations to repreſs it, which have been injudiciouſly called for by ſome writers; inconveniencies, indeed may flow from it, but they are ſo intimately connected with the ſources of proſperity, that to touch them might be dangerous: the hidden benefit is concealed ſometimes beneath the apparent evil; and by remedying the inconvenience, the advantage might be loſt. It is thus ſometimes in the natural body, and I believe often in the political.

It is a remarkable circumſtance in the agriculture, or rather in the domeſtic œconomy of France, that the culture of hemp or flax, for home uſes, pervades every part of the kingdom. It is a curious queſtion how far this is beneficial or not to the general intereſts of the national proſperity. On the one hand, in favour of this ſyſtem it may be urged, that national proſperity being nothing more than the united proſperity of ſingle families, if any ſuch article of œconomy be advantageous to individuals, it muſt be ſo to the nation at large; that it cannot fail of being beneficial to a poor man's family to have the women and children induſtriouſly employed on clothing the whole, rather than forced to buy ſuch articles at an expence of money which they may not be able to procure. By means of induſtry, thus exerted, a poor family is rendered as independent as its ſituation admits. All of them are likewiſe warmer, and more comfortably cloathed, as far as linen is concerned, than if it were bought; for whatever demands money, will be conſumed with much more caution than if the reſult merely of labour, Theſe arguments are unanſwerable; yet there are others, on the contrary, that alſo deſerve attention. If it be true, that national proſperity depends on individuals, and that whatever carries comfort into the cottage of the poor man, adds proportionably to the maſs of national enjoyment, it muſt alſo be equally admitted, that whatever renders a people nationally flouriſhing and rich, reflects back on the loweſt claſſes a large ſhare of, and intimate connection in, ſuch wealth and proſperity, conſequently, if domeſtic manufactures of this ſort be injurious to the great maſs of national intereſts, in a ſtate of combination, they muſt, in ſome meaſure, be individually ſo in a ſtate of

ſeparation. A modern ſociety flouriſhes by the mutual exchange of the products of land for the manufactures of towns; a natural connection of one with the other; and it may be remarked, that in proportion as this exchange is rapid from a great conſumption, in ſuch proportion will a people generally flouriſh. If every family in the country have a patch of flax or hemp for its own ſupply of all the manufactures founded on thoſe materials, this beneficial intercourſe of the country with the town, is ſo far cut off, and no circulation takes place. If the practice be good in flax, it is good in wool; and every family ſhould have a ſufficient number of ſheep, to cloath themſelves in woollens; and if every little village have its little tanner, the ſame ſuppoſition may extend to leather. A patch of vines furniſhes the beverage of the family; and thus, by ſimple domeſtic induſtry, all wants are ſupplied: and a poor family, as it would be improperly called, would have no occaſion to reſort to market for any thing to *buy*. But if it go thither for nothing to buy, it ought to go thither with nothing *to ſell*; this part of the theory is abſolutely neceſſary, for the town has the power of buying only in conſequence of having that of ſelling; if the country buy nothing of the town, aſſuredly the town can buy nothing of the country. Thus it is, that in every combination on theſe ſubjects, a minute diviſion of the ſoil into ſmall properties always attacks the exiſtence of towns, that is to ſay, of what Sir James Stewart calls the *hands* of a ſociety. A countryman living on his own little property, with his family induſtriouſly employed in manufacturing for all their own wants, without exchange, connection, or dependence on any one, offers, indeed, a ſpectacle of rural comfort; but of a ſpecices abſolutely inconſiſtent with the proſperity of a modern ſociety; and were France to conſiſt of nothing elſe, the whole kingdom would become a prey to the firſt invader. Upon ſuch a ſyſtem all taxes muſt ceaſe, and conſequently all public force be annihilated. The whole routine of life would be as well carried on without, as with money, and he who has of neceſſity land and commodities only, could pay no taxes but in kind; in other words, could pay none at all. However plauſible, therefore, the arguments may be in favour of theſe domeſtic manufactures, there are not wanted reaſons that militate powerfully againſt them.

In a caſe of this kind a reference to fact is more valuable than reaſoning. The poor in France abound very much with theſe fabrics, and are very miſerable; the poor in England hardly know ſuch a thing, and are very much at their eaſe; but in Wales, Scotland, Ireland, and ſome of our counties, moſt backward in point of agriculture, the ſyſtem is found; and preciſely in the pooreſt diſtricts of the three kingdoms. It is with regret that I feel myſelf obliged to differ in opinion ſo often, on political ſubjects, from a man of ſuch diſtinguiſhed abilities as the Count de Mirabeau; but upon this ſubject he gives an opinion deciſively in favour of theſe ſcattered domeſtic manufactures, advancing the following ſtrange aſſertion; *Les manufactures réunies, les enterprizes de quelques particuliers qui ſoldent des ouvriers au jour la journée pour travailler à leur compte ne feront jamais un objet digne l'attention des gouvernemens* *. If there be truth in this idea, the fabrics eſtabliſhed in towns, in which a maſter manufacturer employs the poor, are good for nothing. Thoſe of Lyons, Rouen, Louviers, Elbœuf, Carcaſſonne; Carcaſſonne; Mancheſter, Birmingham, Sheffield, &c. are of no account, and do not confer national proſperity. It would be waſting the reader's time to refute formally ſuch opinions. The facts are too notorious, and the arguments too obvious to dwell upon.

* *De la Monarchie, Pruſſienne*, tom. 3. p. 109.

Of

Of the Influence of Manufactures on Agriculture.

NORMANDIE.—*Rouen to Barentin.*—A noble ſoil and full of manufactures, but the moſt execrable huſbandry I have yet ſeen; every field a bed of weeds and couch.

Yvetot.—A noble track of land; richer or deeper loams hardly to be ſeen, but all miſerably cultivated; an exception to the common caſe in France, where fine ſoils are uſually well cultivated: the crops in this country are a perfect contraſt to the ſoil.

Havre.—This whole country, from Rouen, the Pays de Caux, is a region more of manufactures than agriculture. The fabric is what the great population of this diſtrict depends on, their farms being but a ſecondary object. The number of ſmall properties, and conſequently population, is very great, which is the reaſon for the price and rental of land through this country, being vaſtly out of proportion to the products. Landlords alſo divide their farms according to the demand, as the riſe of rent tempts it; but he often finds himſelf depending for the rent of his land, on the proſperity of a fabric. The whole country forms a curious ſpectacle; a vaſt fabric, and an immenſe employment, and population having been abſolutely miſchievous to agriculture. This has been the reſult throughout the Pays de Caux, the ſoil of which may be ranked among the fineſt in France. Had it been a miſerably poor, rocky, or barren territory, the reſult would have been beneficial, for the fabric would have covered ſuch a diſtrict with cultivation. But the farmers of the Pays de Caux are not only manufacturers, but have an inclination alſo for trade; the large ones engage in commercial ſpeculations at Havre, particularly in the cotton trade, and ſome even in that of the Weſt Indies. This is a moſt pernicious and miſchievous circumſtance; the improvement of their cultivation being never the object or reſult of their growing rich, but merely the engaging more largely in trade or manufacture. If they get a ſhare in an American adventure, no matter whether thiſtles and docks cover their fields.

BRETAGNE.—*St. Bricux.*—Meeting here with a linen merchant, and ſome other well-inſtructed perſons, I demanded information concerning the ſtate of huſbandry in the central parts of the province, and particularly the diſtricts in which the great linen manufacture (one of the moſt conſiderable in Europe) is carried on. All I had ſeen of the province was ſuch a wretched and almoſt deſerted waſte, that I ſuppoſed the other parts much better. I was informed, that the whole province was alike, except the biſhoprick of St. Pol. de Leon; that where the linen fabric was chiefly eſtabliſhed, there huſbandry was moſt neglected, from the people depending on their linen alone; that this ſtate of things could not be helped, as it was impoſſible to attend both to their fabric and their land; and the former being found of the moſt importance, the latter was left quite neglected; and that the *landes* in the linen parts of the province, were enormous.

L'Orient.—Here, in converſation concerning the waſtes of Bretagne, I was again aſſured, that the *landes* were of very great extent in the linen country of Pontivy, Loudeac, Moncontour, and St. Quintin; and that what is cultivated is as rough as any I have ſeen; for the weavers are amongſt the very worſt farmers in the province.

Auvergnac.—A perſon intimately acquainted with every part of the province, informed me, that the linen fabric in Bretagne is almoſt always found amidſt bad agriculture, which he attributed to their always ſowing hemp or flax on their beſt lands, and neglecting corn; but where corn is found, as about this place, they depend on it, and are not equally ſolicitous for hemp and flax.

Elbœuf to Rouen.—A deſert.

M. l'Abbé Rayhal remitted 1200 livres to the Royal Society of Agriculture at Paris, to be given as a prize on the ſubject of the following queſtion, *Une agriculture floriſante influe-telle plus ſur la proſpérité des manufactures, que la croiſſement des manufactures ſur la proſpérité, de l'agriculture?* How the writers, who contended for the prize, will decide the queſtion, I ſhall not inquire; but the facts, which I have here noted, ſeem to weigh materially towards enabling us to examine it. I take France to have poſſeſſed, from 1650 to 1750, the moſt flouriſhing manufactures in Europe: they were ſo conſiderable, and ſome of them remain yet ſo important, as to enable us to appeal merely to facts for an anſwer to ſuch a queſtion, ſo far as the example of that kingdom is concerned. That century of proſperous fabrics, what did it effect for agriculture? I may very ſecurely reply, nothing. Whatever accounts I received of the compariſon between the former and the preſent ſtate of their cultivation, were in favour of the latter; yet, ſuppoſing it as good in 1750 as at preſent, I heſitate not to aſſert, that if ſuch immenſe fabrics, encouraged almoſt excluſively for a century, could create no better huſbandry than I met with in France, we may very ſafely conclude, that manufactures may flouriſh greatly, without ſhedding much influence in favour of agriculture. Such is the concluſion which forces itſelf upon one from the general view of the kingdom; but let us examine it more in detail. The greateſt fabrics in France are the cottons and woollens of Normandie, the woollens of Picardy and Champagne, the linens of Bretagne, and the ſilks and hardware of the Lyonois. Now, if manufactures be the true encouragement of agriculture, the vicinity of thoſe great fabrics ought to be the beſt cultivated diſtricts in the kingdom. I have viſited all thoſe manufactures, and remarked the attendant culture, which is unexceptionably ſo execrable, that one would be much more inclined to think there was ſomething peſtiferous to agriculture in the neighbourhood of a manufacture, than to look up to it as a mean of encouragement. Conſidering the fertility of the ſoil, which is great, Picardy and Normandie are among the worſt cultivated countries I have ſeen. The immenſe fabrics of Abbeville and Amiens have not cauſed the incloſure of a ſingle field, or the baniſhment of fallows from a ſingle acre. Go from Elbœuf to Rouen, if you would view a deſert: and the Pays de Caux, poſſeſſing one of the richeſt ſoils in the world, with manufactures in every hut and cottage, preſents one continued ſcene of weeds, filth, and beggary; a ſoil ſo villainouſly managed, that if it were not of an inexhauſtible fertility, it would long ago have been utterly ruined. The agriculture of Champagne is miſerable, even to a proverb; I ſaw there great and flouriſhing manufactures, and cultivation in ruins around them. Let us paſs into Bretagne, which affords but one ſpectacle, that of a dreary, deſolate waſte; dark as ling—*ſombre* as broom can make it. You find yourſelf in the midſt of one of the greateſt linen manufactures in Europe, and, throwing your eye around the country, can ſcarcely believe the inhabitants are fed by agriculture; if they ſubſiſted by the chace of wild animals, their country might be as well cultivated. From hence croſs the kingdom to Lyons; all the world knows the immenſe fabrics found there; and thoſe of St. Etienne among the moſt flouriſhing in the kingdom: *De toutes les provinces de France*, ſays M. Roland de la Platière, *le Lyonois eſt le plus miſerable* *. What I ſaw of it gave me little reaſon to queſtion the aſſertion. The remark of another French writer makes the experiment double: *L'Artois eſt un de provinces les plus riches du royaume. C'eſt un verité inconteſtable—elle ne poſſede point de manufactures* †. I will not preſume to aſ-

* Journal Phyſique, tom. xxxvi, p. 342.

† Memoire ſur cette queſtion, Eſt-il utile en Artois du diviſer les fermes, par M. Delegorgue. 1786. p. 23.

ſert, that the agriculture of certain diſtricts is bad *becauſe* they abound with manufactures, though I believe it to be very much the caſe in the Pays de Caux; I merely ſtate the facts, which I clearly know, becauſe they came within my own eye; the fabrics are the greateſt in the kingdom, and certainly the agriculture is amongſt the worſt. In my tour through Ireland, the journal of which is before the public, I examined, with attention, the vaſt linen manufacture which ſpreads all over the north of that kingdom. I there found the ſame ſpectacle that Bretagne offers; huſbandry ſo miſerably, ſo contemptibly bad, that I have ſhewn, by calculation, the whole province converted into a ſheep-walk, and feeding but two ſheep per acre, would yield, in wool only, a greater value than the whole amount of the linen fabric *; a circumſtance I attribute entirely to the manufacture ſpreading into the country, inſtead of being confined to towns. *Whereever the linen manufacture ſpreads there tillage is very bad*, ſaid that attentive obſerver the Lord Chief Baron Forſter †. The Earl of Tyrone has an eſtate, in the county of Derry, amidſt manufactures, and another in that of Waterford, where there are none; and he aſſured me, that if the Derry land were in Waterford, or abſolutely freed from fabrics, he ſhould clear full one third more money from it ‡.—If we paſs into England, we ſhall find ſomething ſimilar, though not in an equal degree; the manufacturing parts of the kingdom being among the worſt cultivated. You muſt not go for agriculture to Yorkſhire, Lancaſhire, Warwickſhire, or Glouceſterſhire, which are full of fabrics, but to Kent, where there is not the trace of a fabric; to Berkſhire, Hertfordſhire, and Suffolk, where there are ſcarcely any; Norwich is an exception, being the only great manufacture in the kingdom in a thoroughly well cultivated diſtrict, which muſt very much be attributed to the fabric being kept remarkably within the city, and ſpreading (ſpinning excepted) not much into the country; a circumſtance that deſerves attention, as it confirms ſtrongly the preceding obſervations. But the two counties of Kent and Lancaſter are expreſsly to the purpoſe, becauſe they form a double experiment; Lancaſter is the moſt manufacturing province in England, and amongſt the worſt cultivated: Kent has not the ſhadow of a manufacture, and is perhaps the beſt cultivated. Italy will furniſh inſtances more to the purpoſe, than any yet cited. The richeſt and moſt flouriſhing countries in Europe, in proportion to their extent, are probably Piedmont and the Milaneſe. All the ſigns of proſperity are there met with; populouſneſs well employed and well ſupported; a great export without; a thriving conſumption within; magnificent roads; numerous and wealthy towns; circulation active; intereſt of money low; and the price of labour high. In a word, you can name no circumſtance that ſhall prove Mancheſter, Birmingham, Rouen, and Lyons to be in a proſperous ſtate, that is found diffuſed throughout the whole of theſe countries; to what is all this proſperity to be aſcribed? Certainly not to manufactures, becauſe they poſſeſs hardly the trace of a fabric; there are a few of no conſideration at Milan; and there are in Piedmont the ſilk mills, to give the firſt hand to that product,; but on the whole, to an amount ſo very trifling, that both countries muſt be conſidered as *without* fabrics.—They are equally without commerce, being excluded from the ſea; and though there is a navigable river that paſſes through both theſe territories, yet no uſe is made of it, for there are five ſovereigns between Piedmont and its mouth, all of whom lay duties on the tranſit of every ſort of merchandize. As theſe two countries do not owe their riches to manufactures or commerce, ſo undoubtedly they are not indebted for them to

* A Tour in Ireland, 2d edit. 8vo. vol. ii. p. 304. † Ib. vol. i. p. 123. ‡ Ib vol. i. p. 515.

any peculiar felicity in their governments; both are deſpotiſms; and the deſpot * of Milan makes that country a beaſt of burthen to Germany; the revenues are remitted to Vienna; and the cloaths, even for the troops paid by Milan, come from Germany. The origin and the ſupport of all the wealth of theſe countries, are to be found in AGRICULTURE ALONE, which is carried to ſuch perfection as to prove, that it is equal to the ſole ſupport of a modern and moſt flouriſhing ſociety: to keep that ſociety in a ſtate of great wealth; and to enable the government to be, in proportion to their extent, doubly more powerful than either France or England. Piedmont ſupports a regal court, and pays thirty thouſand men. The ſame extent of country, or number of people, does not effect the half of this in any other dominion of Europe. But are theſe territories really without manufactures? no: nor is any country in the world; it is not poſſible to find a people totally exempt from them. The preſent inquiry demands no ſuch exemption: it is only neceſſary to ſhew, that the manufactures found in the Milaneſe and in Piedmont are ſuch as ariſe abſolutely in conſequence of agriculture; that it is agriculture which ſupports and nouriſhes them; and that, on the contrary, theſe manufactures are ſo far from doing any thing politically for agriculture, that they occaſion the expoſing of it to reſtrictions and monopolies; for the government in theſe countries have been bitten by the ſame madneſs of commerce that has infeſted other kingdoms; and have attempted, by ſuch means, to raiſe theſe trifling fabrics into foreign export. Happily they have never been able to do it; for there is reaſon to imagine, that ſucceſs would have ſuggeſted other reſtrictions unfavourable to the great foundation of all their proſperity. Thus the inſtances produced are expreſs to the purpoſe, as they exhibit two opulent ſtates, ſupported by agriculture alone, and poſſeſſing no other manufactures or commerce, than what every country muſt poſſeſs that enjoys a flouriſhing cultivation; for it is not to be expected that ſuch great reſults are to be found attending common exertions only. On the contrary, thoſe that have converted part of theſe noble territories into a garden, have been great and exemplary. The canals, for mere irrigation, are greater works than many in England for the purpoſes of navigation; and the infinite attention that is given to the perpetual deviation of the waters, is a ſpectacle of equal merit and curioſity. Hence the following facts cannot be controverted:

I. That the agriculture of France, after a century of excluſive and ſucceſsful attention to manufactures, was in a wretched ſtate.

II. That the manufacturing diſtricts in France and England are the worſt cultivated.

III. That the beſt cultivation in England, and ſome of the beſt in France, muſt be looked for where no manufactures are to be found.

IV. That when the fabrics ſpread into all the cottages of a country, as in France and Ireland, ſuch a circumſtance is abſolutely deſtructive of agriculture: ſpinning only excepted, which is almoſt univerſal in every country.

V. That agriculture alone, when thoroughly improved, is equal to the eſtabliſhment and ſupport of great national wealth, power and felicity.

And from theſe facts, the following corollaries are clearly deducible:

I. That the beſt method of improving agriculture is not by eſtabliſhing manufactures and commerce, becauſe they may be eſtabliſhed in great extent and perfection, and yet agriculture may remain in a miſerable ſtate.

* The expreſſion has nothing too harſh, when applied to the late Emperor, in whoſe reign I viſited the Milaneſe; it is not applicable to the wiſe and benignant Leopold, who has given ample grounds to induce a belief, that he will prove a bleſſing to every country that is happy enough to be governed by him.

II. That

II. That the eſtabliſhment of a flouriſhing agriculture inevitably occaſions the poſſeſſion of ſuch manufactures and commerce as are equal to the ſupport of numerous and flouriſhing towns; and to whatever is neceſſary to form a great and potent ſociety. The leſſon to governments is deducible in few words: firſt, ſecure proſperity to agriculture, by equal taxation *, and by abſolute liberty † of cultivation and ſale ‡. Secondly, do no more to encourage manufactures and commerce than by letting them alone, a policy excluſive of every idea of monopoly. We may ſafely affirm, and our aſſertions are founded on unqueſtionable facts, that any country will attain the utmoſt proſperity of which its government is capable, that ſteadily purſues this conduct.

CHAP. XX.—*Of the Taxation of France.*

THE difficulty of underſtanding the details of the finances of France, induced me to attempt diſentangling their confuſion, by reducing them to ſuch heads as are common in our own revenue. The particulars indeed are too long to inſert, but the ſubject of taxation is of too much importance to be paſſed over abſolutely in ſilence.

Taxes on Land under the old Government.

	French money.	Engliſh money.
Vingtiemes,	55,565,264 liv.	*L.*2,430,980
Taille,	81,000,000	3,543,750
Local impoſitions,	1,800,000	78,750
Capitation,	22,000,000	962,500
Décimes,	10,600,000	463,750
Sundries,	600,000	26,250
	171,565,264	7,505,980

The calculation of the committee of impoſition §, in the National Aſſembly is this:

Vingtiemes,	55,565,264 liv.
Décimes,	10,000,000
Other impoſitions,	23,844,016
Taille,	73,816,179
Capitation,	6,133,274
Tythes,	110,000,000
Half the *gabelle*.	30,000,000
Half the exciſe on leather,	4,500,000
	313,858,733 Or, *L.*13,740,112 ſterling.

It is ſufficiently evident that this is an inflamed account in ſeveral articles, as the committee had ſome deſign in view. Upon the principles of the œconomiſtes, they propoſed a land-tax of three hundred millions for the ſervice of the year 1791; and that

* There is no equality but in thoſe on conſumption, and tythes alſo incompatible.

† Liberty of cultivation implies an unlimited power of incloſure; the privilege of cultivating any plant the farmer pleaſes without ſhackle or reſtraint. ‡ An unbounded freedom of export.

§ *Raport du Comité de l'Impoſition. Piccès Juſt.* No. 1.

propoſition

propoſition was made under the aſſertion that the nation paid a greater land-tax under the old government. The reaſoning, however, is erroneous; and to direct 110,000,000, the amount of tythes (which the Aſſembly had expreſsly aboliſhed without condition), to be made good by a land-tax, is an oppreſſion for no better reaſon than its having exiſted before: to bring ſalt and leather into the account is another exaggeration; why not include the duties on wine, by parity of reaſoning? A farmer who has no vineyard of his own muſt buy it, and he cannot buy without paying *aides*; but are thoſe taxes therefore to be reckoned? Certainly not; nor any others on conſumption, which are clearly in a different claſs, and not to be included in ſuch a detail.

Taxes on Conſumption.

	French money.	Engliſh money.
Salt,	58,560,000 liv.	*L.*2,562,000
Wine and brandy, &c.	56,250,181	2,460,444
Tobacco,	27,000,000	1,181,205
Leather,	5,850 008	255,937
Paper and cards,	1,081,509	47,315
Starch and powder,	758,049	33,164
Iron,	980,000	42,875
Oil,	763,000	3 ,381
Glaſs,	150,000	6,562
Soap,	838,971	36,704
Linen and ſtuffs,	150,000	6,562
Octrois, Entrées, &c.	57,561,552	2,518,317
Cattle,	630,000	27,562
Cuſtoms,	23,440,000	1,025,500
Tolls,	5,000,000	218,750
Stamps,	20,244,473	885,695
Local duties,	1,133,162	49,575
	260,390,905	11,391,548

It merits the reader's attention, that of this long liſt nothing is retained under the the new government but the cuſtoms and ſtamps.

General Revenue.

	French money.	Engliſh money
Taxes on land,	171,165,264 liv.	*L.*7,505,980
Domaines,	9,900,000	433,125
Conſumption,	260,390,905	11,391,548
Perſonal,	44,240,000	1,935,500
Monopolies.	28,513,774	1,247,496
Sundries, including the Pays d'Etat,	12,580,000	550,375
Taxes not received on account of government,	95,900,000	4,195,625
	623,089,943	27,259,649
Collection,	57,665,000	2,522,843
Total,	680,754,943	29,782,492

Such

Such was the revenue, at the entire command of Louis XVI. And ſuch were the conſequences of the funding ſyſtem, that it had power to ſtrike a palſy into the receipt of ſo enormous an income, even in the hands of the maſter of 250,000 bayonets, and twenty-five millions of ſubjects. Sovereigns ought to contemplate theſe effects of that PUBLIC CREDIT, upon which the banking, money-changing, and ſtock-broking writers, with Necker at their head, have delivered ſuch panegyrics! A ſyſtem that never entered a country, but to deſtroy or to annihilate proſperity: it has ſpread ruin or debility in Spain, Holland, Genoa, Venice, and France: it threatens ſpeedily the extinction of the power, and the overthrow of the conſtitution of England: it has weakened and almoſt deſtroyed Europe, except one country, ſaved by the ſplendid talents of a ſingle ſovereign. It is impoſſible to contemplate ſuch a revenue and population, united with variety of natural advantages poſſeſſed by France, without bleſſing the goodneſs of providence, that a prince like Frederic II. did not fill the throne of Louis XV. Such a penetrating mind would have ſeen, in perſpective, the miſchief of public credit in France, as clearly as he did in Pruſſia; he would have ſtrangled the monſter for ever, and would have thereby eſtabliſhed a power irreſiſtible by all his neighbours; and the nations of Europe would have lain in ruins around him.

Changes in the Revenue, occaſioned by the Revolution.

The general ſtatement, by the firſt miniſter of the finances, from the firſt May, 1789, to April 30, 1790, compared with the receipt for 1788, will give the defalcation that has taken place, and the additions that are carried to account.

	1789.	1790.
1. Fermes générales, -	150,107,000 liv.	126,895,086 liv.
2. Régie générale des aides, -	50,220,000	31,501,988
3. Régie des domaines, -	50,000,000	49,644,573
4. Ferme des poſtes, -	12,000,000	10,958,754
Ferme des meſſageries, -	1,100,000	661,162
6. Ferme de Sceau and Poiſſy, -	630,000	780,000
7. Ferme des affinages, -	120,000	——
8. Abonnement de la Flandre, -	823,000	822,219
9. Loterie, - -	14,000,000	12,710,855
10. Revenus caſuels, -	3,000,000	1,157,447
11. Marc d'or, - -	1,500,000	760,889
12. Saltpetre, - -	6,800,000	303,184
13. Recette générale, -	157,035,890	27,238,524
14. Pays d'Etats, - - -	24,556,000	23,848,261
15. Capitations and vintiemes abonnées,	575,000	1,213,505
16. Impoſitions aux fortifications,	575,000	676,399
17. Benefice des monnoies, -	500,000	824,301
18. Droits attribués a la caiſſe du commerce,	636,355	305,418
19. Forges royales, - -	80,000	401,702
20. Interets, l'Amerique, -	1,600,000	——
21. Debets des comptables, -	——	2,291,860
Carried forward -	469,858,245	292,996,127

22. Parties

	1789.	1790.
Brought forward,	469,858,245 liv.	292,996,127 liv.
22. Parties non reclamées a 'lhotel de Ville,	———	240,262
23. Petits recouvremens,	———	
24. Quinze vingt,	180,000	257,000
	470,038,245	293,493,389
25. Plate carried to the mint,		14,256,040
26. Dons patriotique,		361,587
27. Contribution patriotiques *,		9,721,085
		317,832,101

The vaſt defalcation is, therefore, 176,544,856 liv, (7,723,837l.) the ſum which 1790 falls ſhort of 1789.

1791.——The Committee of Impoſts have calculated the s wanted for the year 1791, and they propoſed to raiſe them in the following manner †:

Land-tax (*contribution fonciere*),	287,000,000	liv.
Tax on perſonal property (*contribution mobiliare*),	60,000,000	
Stamps (*droit d'enregiſtrement*),	50,246,478	
Other ſtamps,	20,764,800	
Patents (ſtamps),	20,182,030	
Lotteries,	10,000,000	
Cuſtoms,	20,700,000	
Powder, ſaltpetre, marc d'or, and affinages,	1,000,000	
Mortgages,	5,375,000	
Poſts and ſtage-coaches,	12,000,000	
Contribution patriotique,	34,562,000	
Domaines,	15,000,000	
Salt works,	3,000,000	
Intereſt from Americans, &c.	4,000,000	
Sale of ſalt and tobacco in the warehouſes of the farmers general,	29,169,462	
	572,999,770	Or, *L.*25,068,750

It appears, by the *Memoires préſentés a l'Aſſemblée Nationale au nom du Com. des Finances, par M. de Monteſquiou*, September 9, 1791. 4to. that the revenue in 1790 produced only 253,091,000 liv. which was made up by anticipations and aſſignats.

* It deſerves attention, that this *contribution patriotique* is mentioned as a reſource of 35,000,000 livres for the year 1791, by the committee of impoſition. *Rapport 6 Decembre*, 1790, *ſur les moyens de pouvoir aux deſpenſes pour* 1791, p. 5.

† *Rapport fait le 6 Decembre*, 1790, 8vo. p. 6. *Rapport fait le 19 February*, 1781, 8vo. p. 7.

Intereſt

Intereſt of Debts.

The extreme variation of ſtatement that theſe exhibit, may prove to us how exceedingly difficult it is to gain any clear and preciſe idea of French finances, for theſe eſtimations of intereſt do not proceed from equal variations in fact, but more from the modes in which accounts are drawn up; anticipations vary conſiderably, and *rembourſemens* are ſometimes paid and ſometimes not. It will however be proper to enquire into the amount of the debt, according to the lateſt ſtatements. The following is the account of the Committee of Finances:

	Capitals.	Intereſt.
Rents viagères (life annuities), —	1,018,233,460 liv.	101,823,846 liv.
Rentes perpetuelles.—*Rentes conſtituées*,	94,912,340	4,745,617
Rentes payées a l'hotel de ville, —	2,422,987,301	52,735,856
Dettes liquidées, —	12,351,643	544,114
Gages & traitemens,	2,603,210	93,645
Communantes, —	3,066,240	153,312
Indemnités, —	27,306,840	1,365,342
Emprunts, Pays d'Etats,	126,964,734	6,276,087
	*3,708,425,768	167,737,819
Dette exigible,	†1,878,816,534	92,133,239
	‡5,587,242,302	259,871,058
Or ſterling, — —	£244,442,099	£11,369,357

The ſum total of theſe intereſts, however, do not agree with thoſe above-mentioned under the year 1790, of 371,306,938 livres, which ſeems to be owing to many *remourſemens* of that year, for ſums very lately advanced on the plate carried to the mint on the *don patriotique*, and on various other receipts. I muſt again remark, that clear accounts are not to be looked for in the complex mountain of French finances.

Aſſignats to the amount of 400,000,000 had then been iſſued; but the committee does not include them in the preceding account.

Since the above was written I have received the *Apperçu des Recettes & Dépenſes de l'Année* 1791, by the finance miniſter, M. Dufreſne, who gives the account of the expences neceſſary to be incurred in 1791, according to the decrees of the aſſembly, and they are as follows:

* The Committee ſtate, that this debt, by leaving the annuities to extinguiſh themſelves, and by buying in the perpetual funds, at twenty years purchaſe, the whole would be extinguiſhed with the ſum of 1,321,191,817 livres *Etat de la Dette Publique.* 4to. 1790. p. 8.

† Monſ. de Monteſquiou, in the memoire preſented September 9, 1791, makes the *dette exigible* amount to 2,,00 000,00 liv. p. 58 He makes the whole debt 3,400,000,000 liv to which add 1,000,000,00 of aſſignats, and this is 5,200,000,000 livres; but 215,000,000 livres of aſſignats have been burnt. p. 46.

‡ I have read Monſ. Arnould (*De la Balance du Commerce*, 1791), who makes the debt 4,152,000,000 livres; but not giving his authorities ſatisfactorily, I muſt adhere to the above-mentioned ſtatement.

To the eccleſiaſtics, for the expence of public worſhip, — —		70,000,000 liv.	
Penſions to the religious of the convents and monaſteries ſuppreſſed, —		70,000,000	
Juſtice, — — —		12,000,000	
Directories of departments and diſtricts,		9,360,000	
Civil liſt, penſions, ſalaries, bureaus, academies, &c. — — —		67,041,363	
All other payments, of which			
intereſt of debts, —	192,265,000		
Paris, — —	9,323,800		
War department and marine,	134,432		
		360,770,500	
		589,17 ,863	or, £25,776,274

To procure an account equally clear of the real receipts for 1790, would be a more intereſting object, for this end I conſulted *Etat des Recettes et Dépenſes pendant l'Année* 1790, 4to. 1791, but it is in vain, the receipts are no longer thrown into ſuch a form as to permit a clear diſtinction between the product of taxes and the receipt, by funding and aſſignats; the receipt is given in two diviſions; firſt, for the four firſt months of the year; and ſecondly, for the eight laſt; and the heads in the two accounts not being the ſame, to calculate them would be attended with very little certainty.

By the *Memoires ſur les Finances préſentés*, 9th September, 1791, 4to. ſome points receive more light than in any preceding account. It appears, that the national eſtates ſold have produced 964,733,114 livres; this is a curious fact; but the *idea*, that the remainder will produce enough to make this ſum 3,500,09 ,000 livres is by no means certain; indeed, it is of a complexion too dubious to be admitted; and of thoſe actually ſold, the receipt only to the amount of 735,054,754 livres is poſitively aſcertained: and this vaſt ſum, in the whole probably not leſs than forty millions ſterling, muſt, without doubt, contribute very greatly, even beyond all calculation, to give ſecurity to the new government, as it intereſts the moſt cloſely an immenſe number of perſons, with all their connections and dependencies, to ſupport that ſyſtem, by which alone this great property can be rendered ſafe. If to this be added the whole *Tiers Etat* of the kingdom, that is ninety in one hundred of the total, it muſt be apparent, that the hopes of a counter revolution muſt reſt on external force, inadequate to the conqueſt of ſuch a kingdom as France, unleſs all poſſible advantages towards favouring the attempt be united and aided by a well connected inſurrection of thoſe who are diſcontented.

	livres.
The Aſſembly decreed, that the general expence of the year ſhould be — — —	584,700,000
And for the departments, — —	56,300,000
Total, — —	641,000,000

Brought

	livres
Brought forward,	641,000,000
Of which the *Caiſſe del Extraordinaire* was to furniſh in lieu of domaines received, — —	60,000,000
	581,000,000
Deduct expence of receipt of 56,300,000 included,	8,000,000
Wanting by taxes, — — —	573,000,000
But the expence of collection and management adds a further burthen to the people of — —	26,292,500

I have drawn up this budget as nearly to the truth as I can, from the three reports f the Committee of Impoſts, of December 6, 1790, February 19, and March 15, 1791, hich reports are not free from confuſion, owing to decrees of the Aſſembly, which ere changeable and various. The *entrées* were poſitively voted for twenty-five milons, and the vote ſcarcely paſſed, when the Fauxbourg St. Antoine voted their aboli- on; a[illegible] queſtion, who was to be obeyed, the National Aſſembly of France, r the Fauxbourgs of Paris. The Aſſembly inſtantly gave way and aboliſhed the *entrées*. Other duties alſo varied much from changeable votes, ſo that there is a neceſſary diſagreement between the three reports in almoſt every article, but in this account I have guided myſelf by the ſums laſt propoſed.

Of the Funding Syſtem.

It appears, from the preceding accounts, that France, under the old government, purſued the ruinous ſyſtem of mortgaging its revenues, as regularly as any other country, whoſe greater freedom might be ſuppoſed to offer more temptations to the practice. This ſyſtem, however, almoſt unaided by any other cauſe, has overturned that government, by means of the moſt extraordinary revolution upon record. If Louis XIV. amidſt the ſplendour of his reign and career of his conqueſts, could poſſibly have foreſeen that the ſecond ſovereign in deſcent from him would be led captive by his ſubjects, on account of the debts he was then contracting, he would either have rejected with horror the ſyſtem he adopted, or have manifeſted the moſt entire want of thoſe feelings which ought to dwell in the breaſt of a great and ambitious monarch. But after this memorable example to other countries, it remains a ſubject of infinite curioſity, to ſee how far the infatuated and blind ſpirit of funding will now be purſued. Every hour, after the great event in France, will make it more and more critical, and will inevitably involve in its train new revolutions, perhaps of a complexion more dangerous to eſtabliſhed families, than any thing we have ſeen in France. If peace is preſerved in that kingdom, the debt will extinguiſh itſelf, being in a great proportion annuities for lives; but were not this the caſe, and ſhould new wars add to the national burthens, the people, almoſt emancipated as they have been from taxation, will be brought back to it with great difficulty; and other aſſemblies, feeling their power better eſtabliſhed, will not pay the ſame attention to the public creditors which the preſent has done; and the event might be ſimilar to what will happen in England. No government will ever think of committing a deliberate act of bankruptcy; but when taxes are puſhed to ſuch a height that the people will no longer pay them, they are ripe for ſedition; preſently feel their own power;—and the event may be eaſily conjectured. What is the concluſion that follows?—That the funding ſyſtem, or rather the wars which occaſion it, are ſo fatal and peſtilential, that at all events they ought to be avoided;

but that if unhappily they cannot, they ſhould be ſupported by annual taxes, (never by loans), which implies a war of defence *at home*; a renunciation of all exterior dominion; and the abſolute annihilation of that commercial ſyſtem of policy on which conqueſts, colonies, and debts have been ſo fatally erected.

Of the Amount of Specie in France.

The writings of Monſ. Necker will aſſiſt in the regiſter of the French mint, which proves ſatisfactorily the quantity of money coined in France; it muſt, however, be ſufficiently obvious, that from this quantity it is mere conjecture to attempt to aſcertain, at any period, the actual quantity of ſpecie remaining in the kingdom.

Coined in France from 1726 to 1780.—	Gold,	—	957,200,000 liv.
	Silver,	—	1,489,500,000
			2,446,700,000
In 1781, 82, and 83,	—	—	52,300,000
			2,499,000,000
And exiſting in 1784,	—	—	2,200,000,000

And he makes the increaſe of ſpecie, in fifteen years, from 1763 to 1777, in France, equal to the increaſe of all the reſt of Europe. From the inquiries of M. Clavière * and M. Arnould †, it appears that the gold and ſilver currency of France, at the aſſembly of the States, was two milliards. (87,500,000l.) Whatever authority Monſ. Necker placed in the ſuppoſed balance of the French trade, of above three millions ſterling per annum, was aſſumed on very inſufficient grounds. The Marquis de Caſſaux has proved the facts, which Monſ. Necker deduced from that balance, to have never exiſted but in his own imagination ‡. The importance alſo, which, in the tenth chapter of the ſame book, that writer aſſigns to the poſſeſſion of great quantities of gold and ſilver; the political conduct he expreſsly recommends to procure thoſe metals, as ſelling much merchandize to other nations, and buying little; ſtudying to effect this by ſhackling trade with duties upon export and import; and by the acquiſition of colonies: the whole of this ſyſtem betrays no inconſiderable degree of littleneſs; it is worthy of the counting-houſe alone; and manifeſts none of the views of a great ſtateſman, nor even the abilities of an able politician: one is ſure to meet, in Monſ. Necker's productions, with an eloquent diſplay of narrow ideas, and never the great reach of real talents, nor the maſterly views of deciſive genius. His miniſtry, and his publications, ſhew the equable orderly arrangement of a mind well regulated for little purſuits; but loſt amidſt the great events of a new ſyſtem, burſting into efficiency amidſt the whirlwind of a revolution.

The total currency, of both gold and ſilver, in Great Britain, may probably not be leſs than forty millions ſterling. But no compariſon can be made between the two kingdoms, becauſe the great maſs of England's circulating currency is in paper; whereas in France all, or nearly all, was in coin, till aſſignats were iſſued. It is probably a

* *Opinion d'un Créancier de l'Etat.* † *De la Bal. du Com.* tom. ii. p. 206.

‡ Monſ. de Calonne's recoinage, of 1785, has proved that Monſ. Necker, even upon a ſubject more peculiarly his own, as a banker, is not ſo correct as one would imagine, when he ventures either to calculate or to conjecture. It is with difficulty he allows 300 millions for the export and melting of louis', which appear to have been 630 000,000 livres. He ſtates the gold coinage (including the ſilver of the years 1781, 82, and 83), at 1,009,500,000 livres, inſtead of which, it was, by Monſ. de Calonne's account, 1,300,000,000 livres.

juſt

juſt obſervation of Mr. Hume, that the circulation of paper tends ſtrongly to baniſh coin. Every kingdom muſt have, proportioned to its induſtry, a circulation of ſomething; and if it have no paper, that circulation, ſo proportioned to its induſtry, will be in coin; the creation of ſo much paper ſupplies the place of it; and conſequently keeps it from flowing into any country, where it is demanded by the offer of valuable equivalents. But, on the other hand, it has been urged, that paper, ſupplying the circulation as well and more conveniently than the metals, allows the latter to be ſent profitably out of the kingdom, not to be loſt, but beneficially as merchandize, and that an annual benefit is made by this, as well as by all other trades. If this argument be good, and in all probability there is ſome truth in it, France, by keeping ſo enormous a capital at home as 90 millions ſterling, to anſwer purpoſes which, in England, are fulfilled with leſs than half, by means of paper, loſes the profit which might be made on 45 millions, were that ſum employed as it is employed in England. There is yet another explanation of the great paper currency of England, which has alſo much truth in it, and eſpecially in the preſent moment. It may be ſaid, that paper has been ſo largely coined in England, becauſe the balance of its tranſactions with foreigners has not brought in the metals as faſt as its induſtry has demanded a circulating repreſentative; its induſtry has increaſed faſter than its money; and I believe this to have been very much the caſe ſince the American war, in which period the progreſs of proſperity, in this kingdom, has been of an unexampled rapidity. In ſuch a circumſtance, the circulation of paper, inſtead of leſſening the quantity of ſpecie, will increaſe it, by facilitating the operations of commerce. Another evil, of a worſe tendency, perhaps, is the diſpoſition to hoard, when the currency is all in the precious metals. Monſ. Necker ſtates, as an undoubted fact, that vaſt ſums of gold are hoarded in France; and circumſtances came to light on Monſ. de Calonne's re-coinage, which proved the ſame fact. The ordinary circulation of Paris does not exceed from 80 to 100,000,000 liv. as we learn from the ſame miniſter *; a fact which alſo unites with the immenſity of the total ſpecie of France, to ſhew that perhaps the great maſs of it is hoarded. It muſt be ſufficiently obvious, that this practice depends much on a want of confidence in the government, and on the erroneous conduct of not encouraging inveſtments in the national induſtry: but it tends ſtrongly to give France a greater maſs of the precious metals than is demanded by her induſtry.

Two conſiderable proofs exiſt in Europe, that a country will always attract ſuch a ſhare of the precious metals as is proportioned to its induſtry, if not prevented by circulating paper. Theſe are Pruſſia and Modena. The King of Pruſſia's treaſure, calculated as it is at 15 millions ſterling, is thrice as much as the whole circulating ſpecie of his dominions. In all probability, had that treaſure not been withdrawn from circulation, the ſpecie would not at this moment have been one dollar greater than it is at preſent; and for this plain reaſon, that there appears no want of currency in thoſe dominions; the degree of induſtry there demanding ſpecie from all its neighbours, has acquired it as faſt as the King has accumulated his treaſure, but had no treaſure been formed, the ſame demand would not have taken place, and conſequently no ſuch influx of money. Modena, as I once before obſerved, in proportion to its extent and riches, affords a ſimilar inſtance; yet the Duke's hoard is ſuppoſed, on pretty good grounds, to exceed very much all the circulating ſpecie of his duchy; and I made particular inquiries at Modena, whether a want of it were perceptible? I was aſſured of the contrary, and that their currency was fully equal to the demands of their induſtry and money-exchanges. From theſe inſtances, we may, without heſitation, pronounce, that the ſpecie of England is kept vaſtly

* *De l'Etat de France*, p. 80.

below

below its natural meaſure, by the immenſity of our paper circulation. There is little importance in poſſeſſing great quantities of ſpecie, if not in a national hoard: the caſe of England nearly permits us to queſtion it altogether. For neither in the domeſtic circulation, nor in foreign tranſactions, has France been able to effect any thing by means of her money, which we have not been able to command equally well, perhaps better, with our paper. A wiſe government ſhould therefore be ſolicitous for the induſtrious and productive employment of her people; if ſhe ſecure that eſſential point, ſhe may ſafely leave the metals to find their own level, without paying any regard whether her circulation be in paper or gold. Nor is there danger of paper being too much multiplied, as long as the acceptance of it is voluntary; for it would not be multiplied, if it were not demanded; and if it be demanded, it ought to be multiplied. With paper, forced by government on the people, the caſe is far different: from the circumſtance of its being *forced* there is the cleareſt proof that it is not *demanded*, and conſequently ought not to be iſſued: force, in ſuch a caſe, is fraud; and a public fraud ought never to be practiſed, but in the laſt extremity of diſtreſs. The aſſignats iſſued by the National Aſſembly are of this complexion; the ſtep, however dangerous, might poſſibly be neceſſary to ſecure the new conſtitution; but I ſhall not heſitate a moment in declaring, that an avowed bankruptcy would, in other reſpects, have been a much wiſer meaſure, and attended probably with fewer and leſs evils. Of thirty-four commercial cities, that preſented addreſſes upon the project of aſſignats, ſeven only were for them *. The ſcheme met with equal oppoſition from rank †, literature ‡, and commerce §. The prognoſtics, however, of an enormous diſcount were not verified ſo much as might have been expected. M. Decretot, in September 1790, mentions them with 400 millions only in circulation, being at ten per cent. diſcount at Bourdeaux: and M. de Condorcet 6 per cent at Paris; thence they both concluded, that the diſcount would be enormous, if a greater iſſue of them took place; yet in May 1791, after many hundred millions more had been iſſued, they were only at from ſeven to ten per cent. diſcount ‖. And another circumſtance equally miſtaken, was the expectation of an enormous riſe of all common prices—which did not happen, for corn rather fell in its value; a remarkable experiment, that deſerves to be remembered. The Marquis de Condorcet ſuppoſed, that wheat would riſe from 24 to 36 liv. the ſeptier, perhaps in one day ¶. The aſſignats amounted, on the diſſolution of the firſt Aſſembly, to 1,800,000,000 liv.

What conſtitutes the Merit of a Tax.

Many writings have appeared of late in France, on the ſubject of taxation, and many ſpeeches have been delivered in the National Aſſembly concerning the principles that ought to govern the ſtateſmen who poſſeſs the power of deciding in queſtions of ſuch importance. It is much to be regretted, that the members, who have made the greateſt figure in that aſſembly, have, in theſe inquiries, rather adopted the opinions of a certain claſs of philoſophers, who made a conſiderable noiſe in France twenty or thirty years ago, than taken the pains ſeriouſly to inform themſelves well of the facts that ought to be examined upon the ſubject. It is not for a traveller to go to the bottom of ſuch in-

* *De l'Etat de la France*, par M. de Calonne, 8vo. 1790. p. 82.
† *Opinion de M. de la Rochefoucauld, ſur l'Aſſignats monnoi.* 8vo.
‡ *Sur la Propoſition d'acquitter les dettes en Aſſignats*, par M. Condorcet. 8vo. p.
§ *Opinion de M. Decretot ſur l'Aſſignats.* 8vo. p. 8.
‖ It became greater ſince; but owing to foreign cauſes.
¶ *Sur la Propoſition d'acquitter les dettes en Aſſignats*, par M. Condorcet, p. 21.

tricate

tricate inquiries, which would demand long details, and a very minute examination; but the queſtion is, in the preſent moment, of ſuch importance to France, that a rapid *coup d'œil* cannot but have its uſe. The following circumſtances are thoſe which I conceive form all the merit of taxation:

1. Equality.
2. Facility of payment.
3. Encouragement of induſtry.
4. Eaſe of collection.
5. Difficulty of too great extenſion.

The firſt eſſential point is equality. It is abſolutely neceſſary, that every individual in the ſociety contribute to the wants of the ſtate, in proportion to his ability, provided ſuch contribution does not impede the progreſs of his induſtry *. Every writer, and every opinion upon the ſubject agree in this; but the difficulty is, how to aſcertain the ability. Taxes on property, and taxes on conſumption, ſeem to have this merit; they will, however, be found to vary prodigiouſly; for long experience, in all countries, has proved the infinite difficulty of aſcertaining property, and the tyranny that is neceſſary to be practiſed in order to be tolerably exact. For this reaſon, all land-taxes, under an appearance of equality, are cruelly unequal: if levied on the groſs produce *in kind*, they are ten times heavier on poor land than on rich; and the value taken by the ſtate, bears no proportion to the expence which effected the production. If levied on the rent, the eaſe of frauds makes them univerſal and perpetual; and if, to avoid theſe, the leaſes are regiſtered and taxed, this prevents leaſes, and deſtroys agriculture. If lands are valued by a *cadaſtre*, the expence is enormous †, and the merit is gone in a few years, by variations impoſſible to correct; till at laſt the only merit of the tax is its *inequality*, which is now the caſe in the Milaneſe, Piedmont, Savoy, and England; where an attempt to make the land-taxes equal would ruin the huſbandry, and produce infinite oppreſſion. Land taxes, ſo far from being equal, are ſo much the reverſe, that it is the *nominal*, and not the *real* property, that bears the tax; for mortgages eſcape though

* Some little obſcurity, that hangs over this definition, ſhould be removed; by *ability*, muſt not be underſtood either capital or income, but that ſuperlucration, as Davenant called it, which melts in conſumption. Suppoſe a manufacturer makes a profit of 2000l. a-year, *living* upon 500l. and annually inveſting 1500l. in his buſineſs, it is ſufficiently obvious, upon juſt principles, that the ſtate cannot lay the 1500l. under contribution by taxes. The 500l. is the only income expected; but when the manufacturer dies, and his ſon turns gentleman, the whole income is made to contribute. It muſt be obvious, however, that exciſes on a manufacturer's fabric are not taxes *on him*, but on the idle conſumer, for he draws them completely back. In like manner, if a landlord farm his own eſtate, and expend the income in improvements, living on but a ſmall portion of the profit, it is ſufficiently clear, that the taxes ought not to affect one ſhilling of his expenditure on his land; they can reach, with propriety, the expences of his living only; if they touch any other part of his expenditure, they deprive him of thoſe tools that are working the buſineſs of the ſtate. A man paying, therefore, *according to his ability*, muſt be underſtood in a reſtrained ſenſe. The prepoſterous nature of land-taxes is ſeen in this diſtinction, that an idle worthleſs diſſipator is taxed exactly in the ſame degree as his induſtrious neighbour, who is converting a deſert into a garden.

† Yet the nobility of Lyons and Artois, and the Tiers of Troyes, demand a general *cadaſtre* of all France, *Cahier*. p. 17.—*Artois*. p. 18.—*Troyes*. p. 7.—The committee of impoſition recommends one alſo. *Rapport*, p. 8.—To make the *cadaſtre* of Limoſin coſt 2,592,000 livres (113,355l. 15s.) and the whole kingdom would coſt at the ſame rate, 82,944,000 liv (3,628,800l.) requiring the employment of 3072 engineers during 18 years *Eſſai d'un Methode générale a etendre les connoiſſances des Voyageurs, par Monſ. Meunier*. 1770. 8vo. tom. i. p. 199. The King of Sardinia's *cadaſtre* is ſaid to have coſt 8*ſ.* the arpent, *Adminiſtration Prov. Le Trône*. tom. ii. p. 236. The *cahiers* demand a *cadaſtre* in the language of the *economiſts*, as if it were to be done as ſoon as imagined, and to coſt only a trifle: and this operation, which would take eighteen years to execute, is adviſed by M. le Trône to be repeated every nine!

amounting

amounting to three-fourths of the property; and if, to avoid this cruelty, the proprietor be allowed, as in the caſe of the *vingtiemes* in France, to tax the mortgagee, either the regulation is evaded by private agreements, or money is no longer lent for the moſt uſeful of all purpoſes. Laſtly, land is viſible, and cannot be concealed; whereas fortunes in money are inviſible, and will ever ſlip away from taxation of every kind, except from thoſe on conſumption. Thus land taxes, viewed in what light ſoever, are totally unequal, oppreſſive, and ruinous. On the contrary, taxes upon conſumption are, of all others, the moſt equal, and the moſt fair; for they are ſtudiouſly and correctly proportioned to the quantity of every man's conſumption *, which may with truth generally be ſuppoſed to be commenſurate to his income; at leaſt it may be aſſerted ſafely, that there is no other method, equally ſure of eſtimating income, as by that of conſumption. There are, it is true, miſers who poſſeſs much, and conſume little; but it is utterly impoſſible to reach ſuch men in taxation, without tyranny: nor is it of much conſequence, for a ſucceſſion of miſers is not to be expected,—and the more the father ſaved, the more the ſon conſumes; ſo that upon the revolution of a given period, the thing balances itſelf, and the ſtate loſes nothing. But there is alſo the greateſt juſtneſs in the equality of theſe taxes for they meaſure themſelves by a man's voluntary expences; if he ſpend his income advantageouſly to the national induſtry and improvement, he pays very light, or no taxes; but if he conſume largely and luxuriouſly, his contribution to the ſtate riſes with his expences; advantages poſſeſſed by no other ſpecies of tax. Equality reigns ſo completely in theſe taxes, that from the poor man, who, conſuming nothing, pays nothing; to the next claſs, which, conſuming little, pays little; and to the moſt wealthy, which, conſuming much, pays much, all is regulated on the moſt perfect ſcale of contribution. It is needleſs to obſerve, that exciſes and cuſtoms equally poſſeſs this advantage; that ſtamps have the ſame, and even greater; and that *entrées* and *octrois* have a like merit, ſo far as cities are concerned, but are inferior in not being equally laid on all perſons, wherever they may reſide: a benefit in the eyes of thoſe who think towns an evil. It muſt be ſufficiently obvious, that all perſonal taxes are, to the higheſt degree unequal, from the impoſſibility of varying them properly with the conditions of life: monopolies are equal or not, in proportion to the whole ſociety being equally ſubjected to them; the poſt-office is one of the beſt of taxes, and the moſt equal.

2. *Facility of payment.*—In this great point, there is only one ſort of tax which has real merit, namely, that on conſumption. Here the tax is blended with the price of the commodity, and the conſumer pays without knowing it. He knows the price of a bottle of wine or brandy, a pack of cards, a coach-wheel, a pound of candles, tea, ſnuff, or ſalt—and he buys as he can afford; it is the ſame to him, whether the ſum he pays be the original expence of production, the dealer's profit, or the national tax; he has nothing to do with calculating them ſeparately, and pays them blended in the price.

* The objection of the committee of impoſts, that the product of ſuch taxes is uncertain, is one of the ſureſt proofs of their merit. Would you have a certain tax from an uncertain income? To demand it is tyranny. *Rapport au Comité de l'Impoſition concernant les Lois Conſtitutionelles des Finances*, 20th December, 1790. 8vo. p. 19. I know of no objections to taxes on conſumption, that do not bear in a greater degree on thoſe upon property. It is ſaid, that exciſes raiſe the prices of manufactures, and impede foreign trade and domeſtic conſumption, which has certainly truth in it; but it is alſo true, that England is, in ſpite of them, the moſt manufacturing and commercial nation upon earth, even with many very bad exciſes, and which ought to be changed; they are ſaid to affect the conſumption of the poor particularly, which is merely objecting to the *abuſe*, and not to the nature of the tax; certainly the *height* to which taxation of every kind is carried in England, is cruel, ſhameful, and tyrannical. Moderate exciſes, properly laid, would have no other ill effects than ſuch as flow of neceſſity from the nature of all taxation; as to *immoderate* taxes, and *improperly* laid, they muſt be miſchievous, whether on property or on conſumption.

His eaſe of paying the tax is great alſo, by the time of demanding it, which is juſt at the moment when he may be thought diſpoſed to conſume, becauſe he can afford it, which is certainly the caſe *with the great* maſs of mankind. Taxes on property, and eſpecially on land, are much inferior in this reſpect. So far as they are advanced by the tenant, and drawn back when he reckons with the landlord, they are eaſy to the latter: but they are exactly, in the ſame proportion, burthenſome to the tenant, who has to advance, out of his own pocket, another man's tax, which is palpably unjuſt. We do not feel this much in England, becauſe the tenantry are commonly rich enough not to regard it; but in other countries, where they are poor, it is a great oppreſſion. At the time alſo of demanding the tax from the landlord, who farms his own eſtate, his caſe is never conſulted; he has to pay the tax, not becauſe he has ſold his produce, for he muſt pay, though his land ſhould not produce a ſingle farthing; not becauſe he buys, and thereby ſhews that he can afford it, but merely becauſe he poſſeſſes, which by no means proves an ability to pay at all: nay, he pays without poſſeſſing more than the name, while another receives the profit; all which ſhews, that land-taxes are groſsly deficient in this eſſential requiſite. It is fair, however, to admit, that a land-tax, paid in kind, like tythes gathered, are eaſy of payment; enormous as other objections are to them, in this reſpect they may have merit. But no ſtate, in modern ages, can take taxes in kind; and if let, and conſequently made an engine of private and perſonal pique or reſentment, they become one of the moſt horrible and deteſtable oppreſſions, fit to be endured by ſlaves only. Perſonal taxes are as bad; a man's having a head, or being born to a title, is no proof that he is able to pay a tax, which is demanded of him, at a time that marks neither receipt nor payment.

3. *Encouragement of induſtry.*—Taxes may be laid in ſuch a manner as to diſcourage and oppreſs induſtry, or, on the contrary, to be in this reſpect harmleſs; and under this head, is to be included the inveſtment of capital. If any branch of national induſtry be overloaded with duties, the profits ariſing from it will be ſo much leſſened, that men will not inveſt their capitals in employments thus injuriouſly treated. The firſt object to be conſidered is, what branch of human exertions and induſtry is nationally moſt beneficial? The writers and ſtateſmen * of all nations (how much ſoever they blunder practically) are theoretically agreed upon this point. There is no queſtion, that agriculture is, of all other employments, the moſt important; and a country will be proſperous, in proportion to the capitals inveſted in that purſuit. This decides the merit of land-taxes; in the degree they take place, the profit of poſſeſſing land is diminiſhed, and conſequently capitals are baniſhed. If a land-tax be equally aſſeſſed, a man's improvements are taxed, which he will calculate before he lays out his money, and never inveſt it in a manner that lays him directly open to the operation of ſuch duties. Thus the lands of ſuch a country will be in the hands of men who have no other capital; and experience uniformly tells us, how important it is to the welfare of agriculture, to have land in rich hands. Taxes upon conſumption, may be made utterly deſtructive of any branch of induſtry by injudicious methods of laying them; or by carrying them to too great a height; but in this caſe, the duty fails ſo much in its produce, that the government ſuffers as much as the employment. The tax upon leather, in France, was ruinous; the ſame tax in England is levied without difficulty. The inconvenience of exciſes chiefly flows from the neceſſity of larger capitals being in the hands of manufacturers, to enable them, not to *pay*, but to *advance* the tax, which they draw back in the price of the commodity; the real payment being thus thrown, as it always ought to be, on the conſumer. This cir-

* Except Colbert, Monſ. Necker, and Mr. Pitt.

cumſtance gives a vaſt ſuperiority to taxes on conſumption, over thoſe on land. The induſtrious man, who inveſts his capital in land, cannot draw back his taxes by raiſing the price of his cattle and corn, and thus make the conſumers pay them; it is ſufficiently evident, that this is impoſſible, whereas all taxes on conſumption are completely drawn back in the price of the goods; unleſs the merchant or manufacturer conſumes himſelf, in which caſe he pays, as he ought to do, the tax. Perſonal taxes, with reſpect to the not diſcouraging of induſtry, and the inveſtment of capital, are very imperfect; and monopolies (except the poſt-office) abſolutely ruinous, for they are prohibitions on every ſort of induſtry which the ſtate chuſes to reſerve to itſelf. The coinage is miſchievous or not, in proportion to its fidelity.

4. *Eaſe of collection.*—In this reſpect, land and houſe-taxes have a manifeſt and clear ſuperiority; for the property is impoſſible to be concealed,—and the collection is as cheap as it is eaſy; and this ſmall merit (of moſt trifling import compared with the magnitude of the evils that attend them) has been the motive for recurring to them ſo much in every country. Exciſes and cuſtoms are difficult and expenſive to levy. Stamps, however, have great merit; in the Britiſh revenue, 1,329,905l. is raiſed at the expence of 51,691l. Perſonal taxes are cheaply collected, which is their only merit: monopolies are every where expenſive—a freſh reaſon for rejecting them.

5. *Difficulty of too great extenſion.*—There is ſome merit in a tax rectifying its own exceſs, which is the caſe with thoſe on conſumption; for if they be carried to an extreme, they fall off in their produce, by encouraging ſmuggling and fraud. But thoſe on property cannot be evaded, and therefore may be extended to a moſt oppreſſive and ruinous exceſs. The general corrollary to be drawn on this ſubject is this—that the beſt taxes are thoſe on conſumption; and the worſt thoſe on property.

On the Propoſition of the Œconomiſtes for an Union of all Taxes on Land.

If the preceding ideas have any thing of truth in them, this ſyſtem muſt be groſsly falſe and miſchievous. I know not whether Mr. Locke were the original father of the doctrine, that all taxes, laid in any manner whatſoever, fall ultimately on land; but whoever ſtarted or ſupported it, contributed towards the eſtabliſhment of one of the moſt dangerous abſurdities that ever diſgraced common ſenſe. To enter largely into a refutation of the maxim would be uſeleſs, as Sir James Stuart in his "Principles of Political Œconomy", has, with great force of reaſoning, laid it in the duſt. It was upon this falſe and vicious theory that the *œconomiſtes* propoſed to abſorb all the impoſts of France in a ſingle land-tax. Grant the erroneous datum, that every tax whatever, on conſumption or otherwiſe, is really borne by the land, and their concluſion is juſt, that it would be better and cheaper to lay on the impoſition directly, in the firſt inſtance, than indirectly and circuitouſly: but the original idea being abſolutely miſtaken, the concluſion falls of courſe. "*Mais que prétendez vous donc obtenir par cette régle ſi menaçante & ſi diſpendieuſe? De l'argent. Et ſurquoi prenez-vous cet argent? Sur des productions. Et d'où viennent ces productions? De la terre. Allez donc plutôt puiſer à la ſource, & demandez un partage régulier, fixe & proportionnel du produit net du territoire* *." What a ſeries of groſs errors is found in this ſhort paſſage; almoſt as many as there are words. The contrary is the fact; for theſe taxes are *not* raiſed on productions; and theſe objects do *not* ariſe from the land; and by laying land-taxes you do *not* dig at the ſource, unleſs you could impoſe land-taxes in foreign countries as well as your own. What

* *Le Trône*, tom i p. 323.

trifling

trifling is it to repeat, again and again, the ſame jargon of ideas, without ſaying one word of the powerful refutation which the above-noted Britiſh writer has poured on the whole ſyſtem? Let the National Aſſembly lay twenty-ſeven *vingtiemes* in a varying land-tax, and then let the ruined kingdom come to theſe viſionaries for the balm of their *nouvelle ſcience*, their *phyſiocratie*, and their *tableau œconomique!* The Nobleſſe of Guienne give it as their opinion, that an impoſt *en nature ſur les fruits*, that is to ſay, a tythe is the beſt tax *. The clergy of Chalons aſk the ſame thing, and that it may abſorb all others †; but the nobility of the ſame place declare expreſsly againſt it ‡. The Abbé Raynal, with all his ingenuitty, falls into the common error §, and calls a cadaſtre *une belle inſtitution.* Monſ. de Mirabeau || has entered at large into a defence of this ſyſtem, by ſhewing that there are great inconveniencies in taxes on conſumption; this every one muſt grant: I know of but two taxes that are free from inconveniencies, the poſt office and turnpikes; all others abound with them; but to dwell on the inconveniencies of exciſes, without ſhewing that they exceed thoſe of land-taxes, is abſurd: you had in France taxes on conſumption to the amount of 260,000,000; we have them in England to a great amount; the only queſtion really to the purpoſe is this; Can you bear an additional land tax to that amount, in conſequence of the benefit that would reſult from taking off the taxes on conſumption? Monſ. Necker has anſwered this queſtion, with relation to France, in a manner that ought to ſhut the mouths of the *œconomiſtes* for ever; and in England there can be but one opinion: we are able to bear the taxes as they are laid at preſent; but if they were all abſorbed on land, agriculture would receive at one ſtroke its mortal wound, and the nation would ſink into utter ruin. We know, from experience, that the landed intereſt cannot poſſibly draw back their taxes; this truth, founded on incontrovertible facts, is deciſive; and if they cannot draw them back, how is the rental of twenty millions to bear land-taxes to the amount of ſeventeen millions? And of what account is the myſtical jargon of a new dialect ¶, relying on theory alone, when oppoſed to the innumerable facts which the preſent ſtate of every country in Europe exhibits? This circumſtance of drawing back a tax, which, with all well imagined duties on conſumption, is univerſally effected, but is abſolutely impracticable with land-taxes, is the great hinge on which this inquiry really turns. When Monſ. Necker ſhews, that if the œconomical ideas were realized, there muſt be TWENTY-EIGHT VINGTIEMES raiſed in France; and when it is conſidered, that in England the rental of the kingdom is but a fifth ** more than the taxes of it, we poſſeſs in both caſes the cleareſt and moſt explicit proofs that there would be an utter impoſſibility to commute the preſent taxes in either country, unleſs it were at the ſame time proved, that landlords could, in the price of their products, draw back ſome enormous taxes, the mere *advance* of which would be an intolerable burthen. But as it is manifeſt, from facts equally explicit, that no land tax can be drawn back; that the product of land taxed at 4s. in the pound ſells preciſely at the ſame price as that of land taxed at no more than 4d.; and that prices never vary in the leaſt in England from the land-tax being at 1s. or 4s. in the pound; nor in France when land pays one or three vingtiemes; when we are in poſſeſſion, I ſay, of facts ſo deciſive, there is the cleareſt ground to conclude, that the idea is viſionary; that ſuch an extenſion of land taxes is utterly

* *Cahier de la Nobleſſe de Guienne*, p. 20. † *Cahier du Clergé de Chalons ſur Marne*, p. 11.
‡ *Cahier*, p. 11. § *Etab. des Europ.* 4to. tom. iv. p. 640.
|| *De la Mon. Pruſſ.* tom iv. p. 53.
¶ The writings of the œconomiſtes *ſcritti in un certo dialetto miſtico. Impoſt ſecondo l'ordine della natura.* 12mo. 171. p. 15.
** Including poor rates and tythes, taxes exceed the rental.

impracticable; and that every attempt towards the execution of theſe plans muſt be immediately pernicious to agriculture, and ultimately ruinous to every intereſt in the ſtate.

Relative to the utter impoſſibility of extending land-taxes in England to ſuch a degree as to include all others, I have it in my power to refer to an inſtance of our taxation moſt correctly given. I have inſerted in the "Annals of Agriculture," No. 86, an account of all the taxes I pay for my eſtate in Suffolk; and in that account it appears, that the track of land which pays me net 229l. 12s. 7d. pays to the burthens of the public 219l. 18s. 5d. Deducting from fifteen millions and a half (the net revenue of Great Britain) thoſe taxes which enter into that ſum of 219l. 18s. 5d. there remains ten millions and a half; and as the preſent land-tax, at two millions, burthens me 40l. a year, an additional one of ten millions and a half would conſequently lay the further burthen of five and a half times as much, or 220l.; that is to ſay, it would leave me the net receipt of 9l. for the whole clear income of my eſtate! Perhaps the *œconomiſtes* never received, directly from facts, ſo convincing a proof as this inſtance offers, of the utter impracticability of their prepoſterous ſchemes. Yet theſe are the principles, ſorry I am to remark, that ſeem at preſent to govern the National Aſſembly in matters of finance. To their honour, however,—greatly to their honour—they do not ſeem inclined to go all the lengths which ſome of their members wiſh for: "*puiſque l'intérêt bien entendu de ces trois grandes ſources de la proſperité des nations, appuyé des noms impoſans de Queſnay, de Turgot, de Gournay, de Mirabeau le pêre, de la Riviere, de Condorcet, de Schmidt, & de Leopald, & développé de nouveau dáns ces derniers momens avec une logique ſi vigoureuſe par M. Farcet n'a pas encore perſuadé cette arbitraire inconſequente & deſpotique reine du monde qu'on appelle l'opinion**." One cannot but ſmile at the figure the great Leopold makes; he is put in the rear, I ſuppoſe, becauſe he never realized, in any one inſtance, the land-tax of the *œconomiſtes*, much to his credit.

The miſchievous, and indeed infamous abuſes in the collection of the *gabelles*, *droits d'aides*, and *droits de traites*, &c. have certainly been in a great meaſure the origin of that prejudice, ſo general in France againſt taxes on conſumption: the cruelties practiſed in the collection, have been falſely ſuppoſed to flow, of neceſſity, from the nature of the taxes; but we know from long experience, the contrary in England; and that exciſes, to a vaſt amount, may be raiſed without any ſuch cruelties, as have been commonly practiſed by the old government in France. I am very far from contending that theſe taxes in England are free from abuſes; and I am ſenſible, that there are caſes in which the dealers in exciſed commodities feel themſelves hardly dealt by; and that liberty is attacked in their operation: but every one muſt alſo be ſenſible, that land-taxes are not free from objections equally ſtrong. When the collector demands ſums that are out of the power of the individual to pay, and ſeizes, by diſtreſs, the goods and chattels, to ſell them, perhaps, for half their value;—when we ſee the people ſtopping up their windows, denying themſelves the enjoyment even of light itſelf, and ſubmitting to live in dampneſs and in darkneſs rather than pay a cruel tax on the property of houſes; when ſuch hardſhips occur, it ſurely will not be thought, that it is duties on conſumption only, that open to ſuch abuſes; every ſort of tax, except the poſt-office, is a heavy evil, and the only enquiry is, of ſo many evils, which is leaſt?

The ſmallneſs of the properties in land, is another inſuperable objection to land-taxes in France: if fairly laid to the real value, on the poſſeſſion of a few acres, they become the ſource of great miſery; the man whoſe land gives him barely the neceſſa-

* *De quelques ameliorations dans la perception de l'impôt*, par M. Dupont, p. 7.

ries

, has nothing to ſpare for direct taxes; he muſt depend for paying them on ſome other employment, at beſt precarious, in a kingdom where population goes ſo much beyond employment, and where numbers ſtarve from inability of maintenance. If, to avoid theſe evils, exemptions from the tax are given them, theſe ſmall properties, the parent and origin, at beſt, of ſuch multiplied diſtreſs, receive a direct encouragement, than which a more cruel policy could not be embraced. The only meaſure that would remedy both evils, is to prohibit the diviſion of landed property into portions, below the ability of paying duties; or elſe to reject land-taxes altogether. A groſs evil of theſe direct impoſts is, that of moneyed men, or *capitaliſts*, eſcaping all taxation: none but duties on conſumption affect them. In countries where land taxes abound, theſe men will never become proprietors, for the ſimpleſt reaſon, becauſe theſe taxes reduce the profit of poſſeſſing land below the profit of other inveſtments. They live upon the intereſt of money in the public funds; and the cleareſt principles of juſtice, call for a ſyſtem of taxation that ſhall bring theſe men within its ſphere; this is only to be done by taxes on conſumption; by exciſes, cuſtoms, ſtamps, *entrées*, &c.; and is a powerful [illegible] multiplying ſuch taxes, inſtead of thoſe on land. Under the regimen of land-taxes, [illegible] foreigners reſiding in a kingdom abſolutely eſcape taxation; but with duties on conſumption they are made to contribute equally with the natives; in ſuch a kingdom as France, which always did, and ever will, attract many ſtrangers, this is an object of ſome conſequence. But, perhaps, the greateſt objection to taxes upon land is, their preventing all improvements in agriculture, if they are equal; and, if unequal, carrying with them the greateſt principle of injuſtice, by being defective in the firſt requiſite of all taxation. The greateſt friend to this ſpecies of impoſition, acknowledges the neceſſity of being equal. It is this that induces the Abbé Raynal to call a *cadaſtre*, *une belle inſtitution*; and a late writer declares, *Il n'eſt point de Pays ou il ne ſoit neceſſaire d'inventorier tout le territoire dans le plus grand detail d'enregiſtrer chaque portion, d'en connoître les mutations d'en evaluer le revenu & ou ſi l'on deſire de perpétuer l'impoſition égale & proportionelle il ne ſoit indiſpenſable de ſuivre la progreſſion du revenue* *:—and this method he explains afterwards, by aſſerting the abſolute neceſſity of having a new valuation every nine years; and he finds fault † with the King of Sardinia's *cadaſtre* becauſe the valuation has never been renewed. Another of theſe politicians obſerves, that the excellency of a tythe, as a mode of taxation, is, that if improvements are extended, or lands cultivated with more care, the revenue of the ſtate increaſes with it ‡. In the ſame ſpirit, many of the *cahiers* demanded the ſuppreſſion of all duties on conſumption §.—I could multiply ſuch ſentiments almoſt to fill a volume, if I were to go back to conſult the deluge of writings which infeſted France five and twenty years ago, but I quote only ſome living authors, who hold theſe pernicious doctrines at preſent, and whoſe writings are received with ſubmiſſion by the National Aſſembly, adopted, and in part carried into execution.

Thus would theſe writers reject the only advantage found in the land-taxes of Milan, Piedmont, and England, that of permanence: they call for valuations of every improvement the moment it is effected in order to tax it, to what amount? To that of abſorbing all the impoſts of a modern ſtate, to the amount of twenty-ſeven vingtiemes in France; and to that of a rental of twenty millions paying ſeventeen in England! To reaſon upon ſuch extravagance would be an idle waſte of time; but I ſhall not diſ-

* *Lé Tronê Ad. Prov* tom. i. pref. xiv. † *Ibid.* p. 235.

‡ *Plan d'Admin. des Finances*, par M. Malport. 1787. p. 34.

§ *Nobleſſe de Lyon*, p. 16. *Bugey*, p. 28. *Troyes Tiers Etat*, art. 13. *Etampes*, art. 32. *Nimes*, p. 44. There is not a tax exiſting in France, which is not demanded in ſome cahier to be ſuppreſſed.

miſs the ſubject without remarking, that if the National Aſſembly adopts the tax recommended by their committee, of three hundred millions, and ſhould, upon theſe principles, make it a variable one, though never riſing in its amount above that ſum, the mere mutation of eaſing a wretched, poor, ſlovenly farmer, and loading proportionally an improving one, will abſolutely prohibit all ameliorations of the national agriculture: and if they ſhall draw theſe variations to the profit of the ſtate, by increaſing the total ſum proportionably to ſuch improvements, they will ſtill prevent them, as no man will inveſt his capital in any induſtrious employment in which the ſtate taxes his profits.

Duties on conſumption do not affect the induſtrious, they fall principally on the idle conſumer, where they ought to fall, and conſequently manufacturers and merchants, as we have ample experience in England, are not deterred from inveſting their capitals in employments ſubjected to thoſe taxes, for their profits abſolutely eſcape the tax, till by a voluntary conſumption they claſs themſelves (in ſpending thoſe profits), among the non-induſtrious; then they not only advance the tax, but really pay it, as it is right they ſhould; but with land taxes the caſe is totally different, becauſe they cannot be drawn back; an induſtrious manufacturer calculates the profits his capital will yield him under the preſſure of taxes on conſumption; he eſtimates the *advance* only of the tax, charging upon his goods the intereſt of that advance, and thus the tax is to him merely inconvenience in requiring a larger capital; but an induſtrious farmer, calculating in like manner, the profit of his capital inveſted under the preſſure of land-taxes, finds, in a moment, that with him it is not merely advancing the tax, but actually paying and bearing it; it comes then immediately upon him as a deduction from his profit; and if it is proportional and equal, not a ſhilling of that profit eſcapes. What is the ſelf-evident conſequence? Moſt clearly that he will not make ſuch an inveſtment but turn his money to other employments that will pay him better: and can it be neceſſary at this time of day, to point out the miſchief of turning capitals from agriculture to any other employment; or, which is the ſame thing, preventing their being inveſted in it?

As I have mentioned ſeveral writers in favour of land-taxes, in terms of that condemnation, abſolutely neceſſary by a friend of agriculture, it is no more than juſtice to obſerve, that France contains ſome others, whoſe writings are free from this great objection. Monſ. Necker, in his treatiſe on the adminiſtration of the finances, gives the preference to taxes on conſumption, and ſhews the utter impoſſibility of a land-tax abſorbing all others. The Marquis de Caſſaux * alſo has attempted, with much force of reaſon to prove, that the land-taxes of France and England *ought to be converted into duties on conſumption.* And ſome of the beſt writers of that vaſt collection, in which the phyſiocratical ſcience originated, are of the ſame opinion. Proportional impoſts, on the conſumption of commodities are *the moſt juſt, the moſt productive, and the leaſt burthenſome to a people, becauſe paid daily and imperceptibly* †. And the nobility of Quercy have, in their *cahier*, a paſſage which does honour to their good ſenſe: *Conſiderant que l'impôt indirect a l'inappréciable avantage d'une perception imperceptible & ſpontanée: que le contribuable ne la paye qu'au moment ou il en a les moyens: qu'il frappe ſur les capitaliſtes dont le genre de fortune échappe à toute autre impôt: que la meaſure des conſummations étant en général celle des richeſſes il atteint par ſa nature à une juſteſſe de repartition d'ont l'impôt direct n'eſt pas ſuceptible* ‡.—Theſe are ſterling and wiſe principles, in few words, developed in the moſt ſtriking features.

* *Mechaniſme des Societies*, 8vo. 1785. p. 222. † *Encyclopedie*, folio. tom. viii. p. 602. ‡ Page 6.

Of

Of Simplicity in Taxation.

So many of the *cahiers* of France unite with the *œconomiſtes*, in calling for the utmoſt ſimplicity in taxation, by means of one only and uniform proportional impoſt on land, that it merits a ſhort inquiry, how far this theory of ſimplicity is, in itſelf, deſerving of the ideas entertained of it. There can be no doubt of the advantage of a cheap collection attending this or any plan of ſimplicity; but there are reaſons for thinking that this benefit would be purchaſed at an expence a thouſand times greater than it is worth.

I do not love recurring to, or depending altogether on reaſoning, when facts are at hand on which we can build our concluſions: the taxes of England are infinitely various; much more ſo than in France, eſpecially in the articles of exciſes and ſtamps; our taxes are alſo very great; in proportion to the population of the kingdom, much more than double thoſe of France; yet, with this vaſt burthen, they are borne by the people with much more eaſe than the French nation bears leſs than the half. This is to be attributed to no one cauſe only, but to many; but amongſt thoſe cauſes, I believe, will be found this great variety of points on which they bear. The mere circumſtance of taxes being very numerous, in order to raiſe a given ſum, is a conſiderable ſtep towards equality in the ſpheres falling on the people; If I was to define a good ſyſtem of taxation, it ſhould be that of *bearing lightly on an infinite number of points, heavily on none.* In other words, that ſimplicity in taxation is the greateſt additional weight that can be given to taxes, and ought, in every country, to be moſt ſeduloufly avoided.—By a ſyſtem of ſimplicity in taxation, let it be exerted in whatever method, whether on land, on perſons, or on conſumption, there will always be claſſes of the people much lighter taxed than other claſſes; and this inequality will throw an oppreſſive burthen on thoſe who are moſt expoſed to the operation of whatever tax is choſen. No one is a greater enemy than I am to land-taxes; but ſuch is the advantage of an extremely various ſyſtem, that I would not contend for taking them entirely off in any country. A land-tax of 6d. 9d. or perhaps 1s. in the pound, but permanent, would be ſo light a burthen, that it might be borne, without the miſchief of impeding agriculture. Taxes on windows are amongſt the very worſt that can be laid; but as far as 3d. each, might not be liable to much objection. Unfortunately for France, the favourite idea there is the very contrary one—that of ſimplicity It would have been wiſe not abſolutely to ſuppreſs any one of their taxes, not even the *gabelle* itſelf: removing the abuſes that flow from farming a revenue, introducing into the receipt the mildneſs of a free government, and changing entirely the mode of collection, would have removed the chief objections to thoſe taxes which have been aboliſhed, and have ſaved the enormous evil, now neceſſary, of loading land. This ſubject is a fruitful one, worthy the attention of able pens expreſsly employed on it, the rapid ſketches which can alone be given by a traveller will allow of mere hints.

CHAP. XXI.—*On the Revolution of France.*

THE groſs infamy which attended *lettres de cachet* and the Baſtile, during the whole reign of Louis XV. made them eſteemed in England, by people not well informed, as the moſt prominent features of the deſpotiſm of France. They were certainly carried to an exceſs hardly credible; to the length of being ſold with blanks, to be filled up with names at the pleaſure of the purchaſer; who was thus able, in the gratification of pri-

vate revenge, to tear a man from the bosom of his family, and bury him in a dungeon, where he would exist forgotten, and die unknown * !—But such excesses could not be common in any country; and they were reduced almost to nothing from the accession of the present King. The great mass of the people, by which I mean the lower and middle ranks, could suffer very little from such engines, and as few of them are objects of jealousy, had there been nothing else to complain of, it is not probable they would ever have been brought to take arms. The abuses attending the levy of taxes were heavy and universal. The kingdom was parcelled into generalities, with an intendant at the head of each, into whose hands the whole power of the crown was delegated for every thing except the military authority; but particularly for all affairs of finance.—The generalities were subdivided into elections, at the head of which was a *sub-deleguè*, appointed by the intendant. The rolls of the *taille*, *capitation*, *vingtiemes*, and other taxes, were distributed among districts, parishes, and individuals, at the pleasure of the intendant, who could exempt, change, add, or diminish at pleasure. Such an enormous power, constantly acting, and from which no man was free, must, in the nature of things, degenerate in many cases, into absolute tyranny. It must be obvious, that the friends, acquaintances, and dependents of the intendant, and of all his *sub-deleguès*, and the friends of these friends, to a long chain of dependence, might be favoured in taxation at the expence of their miserable neighbours; and that noblemen, in favour at court, to whose protection the intendant himself would naturally look up, could find little difficulty in throwing much of the weight of their taxes on others, without a similar support. Instances, and even gross ones, have been reported to me in many parts of the kingdom, that made me shudder at the oppression to which numbers must have been condemned, by the undue favours granted to such crooked influence. But, without recurring to such cases, what must have been the state of the poor people paying heavy taxes, from which the nobility and clergy were exempted? A cruel aggravation of their misery, to see those who could best afford to pay, exempted because able!—The inrollments for the militia, which the *cahiers* call *an injustice without example* †, were another dreadful scourge on the peasantry; and, as married men were exempted from it, occasioned in some degree that mischievous population, which brought beings into the world, in order for litte else than to be starved. The *corvées*, or police of the roads, were annually the ruin of many hundreds of farmers; more than three hundred were reduced to beggary in filling up one vale in Loraine: all these oppressions fell on

* An anecdote, which I have from an authority to be depended on, will explain the profligacy of government, in respect to these arbitrary imprisonments. Lord Albermarle, when ambassador in France, about the year 1753, negotiating the fixing of the limits of the American colonies, which, three years after, produced the war, calling one day on the minister for foreign affairs, was introduced for a few minutes, into his cabinet, while he finished a short conversation in the apartment in which he usually received those who conferred with him. As his lordship walked backwards and forwards, in a very small room (a French cabinet is never a large one), he could not help seeing a paper lying on the table, written in a large legible hand, and containing a list of the prisoners in the Bastile, in which the first name was Gordon. When the minister entered, Lord Albermarle apologized for his involuntary remarking the paper; the other replied that it was not of the least consequence, for they made no secret of the names. Lord A. then said, that he had seen the name of Gordon first in the list, and he begged to know, as in all probability the person of this name was a British subject, on what account he had been put into the Bastile. The minister told him that he knew nothing of the matter, but would make the proper inquiries. The next time he saw Lord Albermarle, he informed him, that, on inquiring into the case of Gordon, he could find no person who could give the least information; on which he had had Gordon himself interrogated, who solemnly affirmed, that he had not the smallest knowledge, or even suspicion, of the cause of his imprisonment, but that he had been confined thirty years; however, added the minister, I ordered him to be immediately released, and he is now at large. Such a case wants no comment.

† *Nob. Briey*, p. 6. &c. &c.

the

the *tiers etat* only; the nobility and clergy having been equally exempted from *tailles*, militia, and *corvées*. The penal code of finance makes one ſhudder at the horrors of puniſhment inadequate to the crime *. A few features will ſufficiently characterize the old government of France:

1. Smugglers of ſalt, armed and aſſembled to the number of five, in Provence, *a fine of* 500 livres *and nine years gallies*; in all the reſt of the kingdom, *death*.

2 Smugglers armed, aſſembled, but in number under five, *a fine of* 300 livres *and three years gallies*. Second offence, *death*.

3. Smugglers, without arms, but with horſes, carts, or boats, *a fine of* 300 livres, *if not paid three years gallies*. Second offence, 500 livres *and nine years gallies*.—In Dauphiné, ſecond offence, *gallies for life*. In Provence, *five years gallies*.

4. Smugglers, who carry the ſalt on their backs, and without arms, *a fine of* 200 livres *and, if not paid, are flogged and branded*. Second offence, *a fine of* 300 livres and *ſix years gallies*.

5. Women, married and ſingle, ſmugglers, firſt offence *a fine of* 100 livres. Second, 500 livres, [illegible] *flogged, and baniſhed the kingdom for life. Huſbands reſponſible both in fine and body*.

6. Children ſmugglers, the ſame as women.—*Fathers and mothers reſponſible; and for defect of payment flogged*.

7. Nobles, if ſmugglers, *deprived of their nobility; and their houſes razed to the ground*.

8. Any perſons in employments, (I ſuppoſe employed in the ſalt-works or the revenue,) if ſmugglers, *death*. And ſuch as aſſiſt in the theft of ſalt in the tranſport, *hanged*.

9. Soldiers ſmuggling with arms, are *hanged*; without arms, *gallies for life*.

10. Buying ſmuggled ſalt to reſel it, *the ſame puniſhment as for ſmuggling*.

11. Perſons in the ſalt employments, *empowered if two, or one with two witneſſes, to enter and examine houſes even of the privileged orders*.

12. All families, and perſons liable to the *taille*, in the provinces of the *Grandes Gabelles* inrolled, and their conſumption of ſalt for the *pot and ſaliere* (that is the daily conſumption, excluſive of ſalting meat, &c. &c.) eſtimated at 7lb. a head per annum, which quantity they are forced to buy whether they want it or not, under the pain of various fines according to the caſe.

The *Capitaineries* were a dreadful ſcourge on all the occupiers of land. By this term is to be underſtood the paramountſhip of certain diſtricts, granted by the king to princes of the blood, by which they were put in poſſeſſion of the property of all game, even on lands not belonging to them; and, what is very ſingular, on manors granted long before to individuals; ſo that the erecting of a diſtrict into a *capitainerie*, was an annihilation of all manerial rights to game within it. This was a trifling buſineſs, in compariſon

* It is calculated by a writer (*Recherches et Conſid. par M. le Baron de Cormeré*, tom. ii. p. 187.) very well informed on every ſubject of finance, that upon an average, there were annually taken up and ſent to priſon or the gallies, Men, 2340. Women, 890. Children, 201. Total, 3437. 300 of theſe to the gallies (tom. i. p. 112.) The ſalt confiſcated from theſe miſerables amounted to 12,633 quintals, which, at the mean price of 8 livres, are - - - 101,064 liv.

2772lb. of ſalted fleſh, at 1*cſ.*	- -	13 6
1086 horſes, at 50 livres,	- -	54,300
5 carts, at 150 livres,	- -	7,800
Fines, - - -	- -	53,207
Seized in houſes, -	- -	105,530
		323,287

of other circumſtances; for, in ſpeaking of the preſervation of the game in theſe *capitaineries*, it muſt be obſerved, that by game muſt be underſtood whole droves of wild boars, and herds of deer not confined by any wall or pale, but wandering at pleaſure over the whole country, to the deſtruction of crops; and to the peopling of the gallies by the wretched peaſants, who preſumed to kill them, in order to ſave that food which was to ſupport their helpleſs children. The game in the *capitainerie* of Montceau, in four pariſhes only, did miſchief to the amount of 184,263 livres per annum *. No wonder then that we ſhould find the people aſking, "*Nous demandons à grand cris la deſtruction de capitaineries & celle de toute ſorte de gibier* †." And what are we to think of demanding as a favour, the permiſſion—"*De nettoyer ſes grains de faucher les prés artificiels, & d'enlever ſes chanmes ſans égard pour la perdrix ou tout autre gibier* ‡." Now an Engliſh reader will ſcarcely underſtand it without being told, that there were numerous edicts for preſerving the game which prohibited weeding and hoeing, leſt the young partridges ſhould be diſturbed; ſteeping ſeed, leſt it ſhould injure the game; manuring with night ſoil, leſt the flavour of the partridges ſhould be injured by feeding on the corn ſo produced; mowing hay, &c. before a certain time, ſo late as to ſpoil many crops; and taking away the ſtubble, which would deprive the birds of ſhelter. The tyranny exerciſed in theſe *capitaineries*, which extended over four hundred leagues of country, was ſo great, that many *cahiers* demanded the utter ſuppreſſion of them §. Such were the exertions of arbitrary power which the lower orders felt directly from the royal authority; but, heavy as they were, it is a queſtion whether the others, ſuffered circuitouſly through the nobility and the clergy, were not yet more oppreſſive? Nothing can exceed the complaints made in the *cahiers* under this head. They ſpeak of the diſpenſation of juſtice in the manerial courts, as compriſing every ſpecies of deſpotiſm; the diſtricts indeterminate—appeals endleſs—irreconcileable to liberty and proſperity—and irrevocably proſcribed in the opinion of the public ‖—augmenting litigations—favouring every ſpecies of chicane—ruining the parties—not only by enormous expences on the moſt petty objects, but by a dreadful loſs of time. The judges commonly ignorant pretenders, who hold their courts in *cabarets*, and are abſolutely dependent on the ſeigneurs ¶. Nothing can exceed the force of expreſſion uſed in painting the oppreſſions of the ſeigneurs, in conſequence of their feudal powers. They are "*vexations qui ſont le plus grand fléau des peuple* **.—*Eſclavage affligeant* ††.—*Ce regime deſaſtreuſe* ‡‡.——That the *feodalité* be for ever aboliſhed. The countryman is tyrannically enſlaved by it. Fixed and heavy rents; vexatious proceſſes to ſecure them; appreciated unjuſtly to augment them: rents, *ſolidaires*, and *revenchables*; rents, *chéantes*, and *levantes*; *fumages*. Fines at every change of the property, in the direct as well as collateral line; feudal redemption (*retraite*); fines on ſale, to the 8th and even the 6th penny; redemptions (*rachats*) injurious in their origin, and ſtill more ſo in their extenſion; *banalité* of the mill §§, of the oven, and of the wine and cyder-preſs; *corveés* by cuſtom; *corveés* by uſage of the fief; *corveés* eſtabliſhed by unjuſt decrees; *corveés* ar-

* *Cahier du tiers etat de Maaux*, p. 49. † *De Montes* and *Meulan*, p. 38.
‡ *Ibid.* p. 40.—Alſo, *Nob. & Tier Etat de Perone*, p. 42. *De Trois ordres de Montfort*, p. 28.
§ *Clergé de Provins & Montereau*, p. 35.—*Clergé de Paris*, p. 25.—*Clergé de Mantes & Meulan*, p. 45, 46. *Clergé de Laon*, p. 11.—*Nob. de Nemours*, p. 17.—*Nob. de Paris*, p. 22.—*Nob. d'Arras*, p. 29.
‖ *Rennes*, art. 12. ¶ *Nevernois*, art. 43. ** *Tier Etat de Vannes*, p. 24.
†† *T. Etat Clermont Ferrand*. p. 52. ‡‡ *T. Etat Auxerre* art. 6.
§§ By this horrible law, the people are bound to grind their corn at the mill of the ſeigneur only; to preſs their grapes at his preſs only; and to bake their bread in his oven; by which means the bread is often ſpoiled, and more eſpecially wine, ſince in Champagne thoſe grapes which, preſſed immediately, would make white wine, will, by waiting for the preſs, which often happens, make red wine only.

bitrary, and even phantastical; servitudes; *prestations*, extravagant and burthensome; collections by assessments incollectible; *aveux*, *minus*, *impuniessemens*; litigations ruinou and without end; the rod of seigneural finance for ever shaken over our heads; vexa tion, ruin, outrage, violence, and destructive servitude, under which the peasants, al most on a level with Polish slaves, can never but be miserable, vile, and oppressed * They demand also, that the use of hand-mills be free; and hope that posterity, if pos sible, may be ignorant that feudal tyranny in Bretagne, armed with the judicial power has not blushed even in these times at breaking hand-mills, and of selling annually to the miserable the faculty of bruising between two stones a measure of buck-wheat or barley †. The very terms of these complaints are unknown in England, and conse quently untranslateable; they have probably arisen long since the feudal system ceased in this kingdom. What are these tortures of the peasantry in Bretagne, which they call *chevanchés*, *quintaines*, *soule*, *saut de poison*, *baiser de mariées*; *chansons*; *transport d'œuf un charette*; *silence des grenouilles* ‡; *corveé a misericorde*; *milods*; *leide*; *coupo nage*; *cartelage*; *borage*; *fouage*; *marechaussee*; *ban vin*; *ban d'aout*; *trousses*; *gelinage*, *civer*[illegible]; *taill*[illegible]; *wingtain*; *sterlage*; *bordelage*; *minage*; *ban de vendanges*; *droi d'accapte* §. In passing through many of the French provinces, I was struck with the various and heavy complaints of the farmers and little proprietors of the feudal griev ances, with the weight of which their industry was burthened; but I could not then conceive the multiplicity of the shackles which kept them poor and depressed. I un derstood it better afterwards, from the conversation and complaints of some grand seigneurs, as the revolution advanced; and I then learned, that the principal rental of many estates consisted in services and feudal tenures; by the baneful influence of which the industry of the people was almost exterminated. In regard to the oppressions of the clergy as to tythes, I must do that body a justice, to which a claim cannot be laid in England. Though the ecclesiastical tenth was levied in France more severely than usual in Italy, yet was it never exacted with such horrid greediness as is at present the disgrace of England. When taken in kind, no such thing was known in any part of France, where I made enquiries, as a tenth: it was always a twelfth, or a thirteenth or even a twentieth of the produce. And in no part of the kingdom did a new article of culture pay anything: thus turnips, cabbages, clover, chicorée, potatoes, &c. &c paid nothing. In many parts, meadows were exempted. Silk worms nothing. Olives in some places paid—in more they did not. Cows nothing. Lambs from the 12th to the 21st. Wool nothing.—Such mildness in the levy of this odious tax, is absolutely unknown in England. But mild as it was, the burden to people groaning under so many other oppressions, united to render their situation so bad, that no change could be for the worse ‖. But these were not all the evils with which the people struggled The administration of justice was partial, venal, infamous. I have, in conversation with many very sensible men, in different parts of the kingdom, met with something of content with their government, in all other respects than this; but upon the question of expecting justice to be really and fairly administered, every one confessed there was

* *Tiers Etat Rennes*, p. 159. † *Rennes*, p. 57.

‡ This is a curious article: when the lady of the seigneur lies in, the people are obliged to beat the water in marshy districts, to keep the frogs silent, that she may not be disturbed; this duty, a very oppressiv one, is commuted into a pecuniary fine.

§ *Resumé des cahiers*, tom iii. p 316, 317.

‖ They have found since how erroneous this opinion was, and that great as th evils were, they have been aggravated into a more exterminating despotism under the fictitious names of liberty an equality.

no ſuch thing to be looked for. The conduct of the parliaments was profligate and atrocious. Upon almoſt every cauſe that came before them, intereſt was openly made with the judges; and woe betided the man who, in a cauſe to ſupport, had no means of conciliating favour, either by the beauty of a handſome wife, or by other methods. It has been ſaid, by many writers, that property was as ſecure under the old government of France as it is in England; and the aſſertion might poſſibly be true, as far as any violence from the king, his miniſters, or the great, was concerned: but for all that maſs of property, which comes in every country to be litigated in courts of juſtice, there was not even the ſhadow of ſecurity, unleſs the parties were totally and equally unknown, and totally and equally honeſt; in every other caſe, he who had the beſt intereſt with the judges, was ſure to be the winner. To reflecting minds, the cruelty and abominable practice attending ſuch courts are ſufficiently apparent. There was alſo a circumſtance in the conſtitution of theſe parliaments, but little known in England, and which, under ſuch a government as that of France, muſt be conſidered as very ſingular. They had the power, and were in the conſtant practice of iſſuing decrees, without the conſent of the crown, and which had the force of laws through the whole of their juriſdiction; and of all other laws, theſe were ſure to be the beſt obeyed; for as all infringements of them were brought before ſovereign courts, compoſed of the ſame perſons who had enacted theſe laws, (a horrible ſyſtem of tyranny!) they were certain of being puniſhed with the laſt ſeverity. It muſt appear ſtrange, in a government ſo deſpotic in ſome reſpects as that of France, to ſee the parliaments in every part of the kingdom making laws without the King's conſent, and even in defiance of his authority. The Engliſh, whom I met in France in 1789, were ſuprized to ſee ſome of theſe bodies iſſuing arrets againſt the export of corn out of the provinces ſubject to their juriſdiction, into the neighbouring provinces, at the ſame time that the King, through the organ of ſo popular a miniſter as Monſ. Necker, was decreeing an abſolutely free tranſport of corn throughout the kingdom, and even at the requiſition of the National Aſſembly itſelf. But this was nothing new; it was their common practice. The parliament of Rouen paſt an arret againſt killing of calves; it was a prepoſterous one, and oppoſed by adminiſtration, but it had its full force; and had a butcher dared to offend againſt it, he would have found, by the rigour of his puniſhment, who was his maſter. Inoculation was favoured by the court in Louis XV.'s time; but the parliament of Paris paſſed an arret againſt it, much more effective in prohibiting, than the favour of the court in encouraging that practice. Inſtances are innumerable, and I may remark, that the bigotry, ignorance, falſe principles, and tyranny of theſe bodies were generally conſpicuous; and that the court (taxation excepted) never had a diſpute with a parliament, but the parliament was ſure to be wrong. Their conſtitution, in reſpect to the adminiſtration of juſtice, was ſo truly rotten, that the members ſat as judges, even in cauſes of private property, in which they were themſelves the parties, and have, in this capacity, been guilty of oppreſſions and cruelties, which the crown has rarely dared to attempt.

It is impoſſible to juſtify the exceſſes of the people on their taking up arms; they were certainly guilty of cruelties; it is idle to deny the facts, for they have been proved too clearly to admit of a doubt. But is it really the people to whom we are to impute the whole?—Or to their oppreſſors, who had kept them ſo long in a ſtate of bondage? He who chuſes to be ſerved by ſlaves, and by ill-treated ſlaves, muſt know that he holds both his property and life by a tenure far different from thoſe who prefer the ſervice of well-treated freemen; and he who dines to the muſic of groaning ſufferers, muſt not, in the moment of inſurrection, complain that his daughters are raviſhed

viſhed, and then deſtroyed; and that his ſons throats are cut. When ſuch evils happen, they ſurely are more imputable to the tyranny of the maſter, than to the cruelty of the ſervant. The analogy holds with the French peaſants—the murder of a ſeigneur, or a chateau in flames, is recorded in every newſpaper; the rank of the perſon who ſuffers, attracts notice; but where do we find the regiſter of that ſeigneur's oppreſſions of his peaſantry, and his exactions of feudal ſervices, from thoſe whoſe children were dying around them for want of bread? Where do we find the minutes that aſſigned theſe ſtarving wretches to ſome vile petty-fogger, to be fleeced by impoſitions, and a mockery of juſtice, in the ſeigneural courts? Who gives us the awards of the intendant and his *ſub-delegués*, which took off the taxes of a man of faſhion, and laid them with accumulated weight on the poor, who were ſo unfortunate as to be his neighbours? Who has dwelt ſufficiently upon explaining all the ramifications of deſpotiſm, regal, ariſtocratical, and eccleſiaſtical, pervading the whole maſs of the people; reaching, like a circulating fluid, the moſt diſtant capillary tubes of poverty and wretchedneſs? In theſe caſes the ſufferers are too ignoble to be known; and the maſs too indiſcriminate to be pitied. But ſhould a philoſopher feel and reaſon thus? ſhould he miſtake the cauſe for the effect? and giving all his pity to the few, feel no compaſſion for the many, becauſe they ſuffer in his eyes not individually, but by millions? The exceſſes of the people cannot, I repeat, be juſtified; it would undoubtedly have done them credit, both as men and chriſtians, if they had poſſeſſed their new acquired power with moderation. But let it be remembered, that the populace in no country ever uſe power with moderation; exceſs is inherent in their aggregate conſtitution: and as every government in the world knows, that violence infallibly attends power in ſuch hands, it is doubly bound in common ſenſe, and for common ſafety, ſo to conduct itſelf, that the people may not find an intereſt in public confuſions. They will always ſuffer much and long, before they are effectually rouſed; nothing, therefore, can kindle the flame, but ſuch oppreſſions of ſome claſſes or order in the ſociety, as give able men the opportunity of ſeconding the general maſs; diſcontent will ſoon diffuſe itſelf around; and if the government take not warning in time, it is alone anſwerable for all the burnings, and plunderings, and devaſtation, and blood that follow. The true judgment to be formed of the French revolution, muſt ſurely be gained from an attentive conſideration of the evils of the old government: when theſe are well underſtood—and when the extent and univerſality of the oppreſſion under which the people groaned—oppreſſion which bore upon them from every quarter, it will ſcarcely be attempted to be urged, that a revolution was not abſolutely neceſſary to the welfare of the kingdom. Not one oppoſing voice* can, with reaſon, be raiſed againſt this aſſertion; abuſes ought certainly to be corrected, and corrected effectually: this could not be done without the eſtabliſhment of a new form of government; whether the

* Many oppoſing voices have been raiſed; but ſo little to their credit, that I leave the paſſage as it was written long ago. The abuſes that are rooted in all the old governments of Europe, give ſuch numbers of men a direct intereſt in ſupporting, cheriſhing, and defending abuſes, that no wonder advocates for tyranny, of every ſpecies, are found in every country, and almoſt in every company. What a maſs of people, in every part of England, are ſome way or other intereſted in the preſent repreſentation of the people, tythes, charters, corporations, monopolies, and taxation! and not merely to the things themſelves, but to all the abuſes attending them, and how many are there who derive their profit or conſideration in life, not merely from ſuch inſtitutions, but from the evils they engender! The great maſs of the people, however, is free from ſuch influence, and will be enlightened by degrees; aſſuredly they will find out, in every country of Europe, that by combinations, on the principles of liberty and property, aimed equally againſt regal, ariſtocratical, and mobbiſh tyranny, they will be able to reſiſt, ſucceſsfully, that variety of combination, which, on principles of plunder and deſpotiſm, is every where at work to enſlave them.

form

form that has been adopted were the beſt, is another queſtion abſolutely diſtinct. But that the abovementioned detail of enormities practiſed on the people required ſome great change is ſufficiently apparent; and I cannot better conclude ſuch a liſt of deteſtable oppreſſions, than in the words of the *Tiers Etat* of Nivernois, who hailed the approaching day of liberty, with an eloquence worthy of the ſubject.

Les plaintes du peuple ſe ſont long-temps perdues dans l'eſpace immenſe qui le ſépare du trône; cette claſſe la plus nombreuſe & la plus intéreſſante de la ſocieté; cette claſſe qui mérite les premiers ſoins du gouvernement, puiſqu' elle alimente toutes les autres; cette claſſe à laquelle on doit & les arts néceſſaries à la vie, & ceux qui en embelliſſent le cours; cette claſſe enfin qui en recueillent moins a toujours payé advantage; peut-elle apres tant de ſiécles d'oppreſſion & de miſere compter aujourdhui ſur un ſort plus heureux? Ce ſeroit pour ainſi dire blaſphémer l'autorité tutélaire ſous laquelle nous vivons que d'en douter un ſeul moment. Un reſpect aveugle pour les abus établis ou pour la violence ou par la ſuperſtition, une ignorance profonde des conditions du pacte ſocial, voila ce qui a perpétué juſqu' à à nous la ſervitude dans laquelle ont gemi nos pères. Un jour plus pure eſt près d'éclorre: le roi a manifeſté le deſir de trouver des ſujets capables de lui dire la vérité; une de ſes loix l'edit de création des aſſemblées provinciales du moi de Juin 1787, annonce que le vœu le plus préſſant de ſon cœur ſera toujours celui qui tendra au ſoulagement & au bonheur de ſes peuples: une autre loi qui a retenti du centre du Royaume à ſes dernières extrémités nous a promis la reſtitution de tous nos droits, dont nous n'avions perdu, & dont nous pouvions perdre que l'exerciſe, puiſque le fond de ces mêmes droits eſt inaliénable & impreſcriptible. Oſons donc ſecouer le joug des anciennes erreurs: oſons dire tout ce qui eſt vrai, tout ce qui eſt utile; oſons réclaimer les droits eſſentiels & primitifs de l'homme: la raiſon, l'equité, l'opinion générale, la bien faiſance connue de notre anguſte ſouverain tout concour à aſſurer le ſuccès de nos doléances.

Having ſeen the propriety, or rather the neceſſity, of ſome change in the government, let us next briefly inquire into the effects of the revolution on the principal intereſts in the kingdom.

In reſpect to all the honours, power, and profit derived to the nobility from the feudal ſyſtem, which was of an extent in France beyond any thing known in England ſince the revolution, or long parliament in 1640, all is laid in the duſt, without a rag or remnant being ſpared *: the importance of theſe, both in influence and revenue, was ſo great, that the reſult is all but ruin to numbers. However, as theſe properties were real tyrannies; as they rendered the poſſeſſion of one ſpot of land ruinous to all around it and equally ſubverſive of agriculture, and the common rights of mankind, the utter deſtruction brought on all this ſpecies of property, does not ill deſerve the epithet they are ſo fond of in France: it is a real regeneration of the people to the privileges of human nature. No man of common feelings can regret the fall of that

* It is to be obſerved, that the orders of knighthood were at firſt preſerved; when the National Aſſembly, with a forbearance that did them honour, refuſed to aboliſh thoſe orders, becauſe perſonal, of merit, and not hereditary, they were guilty of one groſs error. They ought immediately to have addreſſed the King, to inſtitute a new order of knighthood—KNIGHTS OF THE PLOUGH. There are doubtleſs little ſouls that will ſmile at this, and think a thiſtle, a garter, or an eagle more ſignificant, and more honourable; I ſay nothing of orders, that exceed common ſenſe and common chronology, ſuch as St. Eſprit, St. Andrew, and St Patrick, leaving to ſuch as venerate moſt what they leaſt underſtand But that prince, who ſhould firſt inſtitute this order of rural merit, will reap no vulgar honour: Leopold, whoſe twenty years of ſteady and well earned Tuſcan fame gives him a good right to do it with propriety, might, as Emperor, inſtitute it with moſt effect. In him, ſuch an action would have in it nothing of affectation. But I had rather that THE PLOUGH had thus been honoured by a free aſſembly. It would have been a trait, that marked the philoſophy of a new age, and a new ſyſtem.

abo-

abominable ſyſtem, which made a whole pariſh ſlaves to the lord of the manor. But the effects of the revolution have gone much farther; and have been attended with conſequences not equally juſtifiable. The rents of land, which are as legal under the new government, as they were under the old, are no longer paid with regularity. I have been lately informed (Auguſt 1791) on authority not to be doubted, that aſſociations among tenantry, to a great amount and extent, have been formed, even within fifty miles of Paris, for the non-payment of rent; ſaying, in direct terms, we are ſtrong enough to detain the rent, and you are not ſtrong enough to enforce the payment. In a country where ſuch things are poſſible, property of every kind, it muſt be allowed, is in a dubious ſituation. Very evil conſequences will reſult from this; arrears will accumulate too great for landlords to loſe, or for the peaſants to pay, who will not eaſily be brought to reliſh that order and legal government, which muſt neceſſarily ſecure theſe arrears to their right owners. In addition to all the reſt, by the new ſyſtem of taxation, there is laid a land-tax of 300 millions, or not to exceed 4s. in the pound; but, under the old government, their *vingtiemes* did not amount to the ſeventh part of ſuch an impoſt. In whatever light, therefore, the caſe of French landlords is viewed, it will appear that they have ſuffered immenſely by the revolution.—That many of them deſerved it, cannot, however, be doubted, ſince we ſee their *cahiers* demanding ſteadily, that all their feudal rights ſhould be confirmed*: that the carrying of arms ſhould be ſtrictly prohibited to every body but noblemen†: that the infamous arrangements of the militia ſhould remain on its old footing ‡: that breaking up waſtes, and incloſing commons, ſhould be prohibited §: that the nobility alone ſhould be eligible to enter into the army, church, &c. ‖: that *lettres de cachet* ſhould continue ¶: that the preſs ſhould not be free **: and in fine, that there ſhould be no free corn trade ††.

To the clergy, the revolution has been yet more fatal. One word will diſpatch this inquiry. The revolution was a decided benefit to all the lower clergy of the kingdom; but it was deſtructive of all the reſt. It is not eaſy to know what they loſt on the one hand, or what the national account will gain on the other. Monſ. Necker calculates their revenue at 130,000,000 livres, of which only 42,500,000 livres were in the hands of the *curées* of the kingdom. Their wealth has been much exaggerated: a late writer ſays, they poſſeſſed half the kingdom‡‡. Their number was as little known as their revenue; one writer makes them 400,000 §§; another 81,400 ‖‖; a third 80,000 ¶¶.

* *Evereux*, p. 32.—*Bourbonnois*, p. 14.—*Artois*, p. 22.—*Bazas*, p. 8.—*Nivernois*, p. 7.—*Poitu*, p. 13. *Saintonge*, p. 5.—*Orleans*, p. 19.—*Chaumont*, p. 7.

† *Vermaudois*, p. 41.—*Queſnoy*, p. 19.—*Sens*, p. 25.—*Evreux*, p. 36.—*Seſanne*, p. 17.—*Barſur Seine*, p. 6.—*Beauvais*, p. 13.—*Bugey*, p. 34.—*Clermont Ferrand*, p. 11.

‡ *Limoges*, p. 36. § *Cambray*, p. 9.—*Pont a Mouſſon*, p. 38.

‖ *Lyon*, p. 13.—*Touraine*, p. 31.—*Angoumois*, p. 13.—*Auxerre*, p. 13. The Author of the *Hiſtorical Sketch of the French Revolution*, 8vo. 1792, ſays, p. 68, "the worſt enemies of nobility have not yet brought to light any *cahier*, in which the nobles inſiſted on their excluſive right to military preferments."—In the ſame page this gentleman ſays, it is impoſſible for any Engliſhman to ſtudy four or five hundred *cahiers*. It is evident, however, from this miſtake, how neceſſary it is to examine them before writing on the revolution. ¶ *Vermaudois*, p. 23.—*Chalons-ſur Marne*, p. 6.—*Gien*, p. 9. ** *Crepy*, p. 10.

†† *St. Quetin*. p. 9. ‡‡ *De l'Autorité de Monteſquieu dans la revolution preſenté*. 8vo. 1789. p. 61. §§ *Etats Generaux convoqués, par Louis* XVI. par M. Target, prem. ſuite, p. 7.

‖‖ *Qu'eſt-ce-que le Tiers Etat*, 3d edit. par M. l'Abbé Siéyés. 8vo. p. 51.

¶¶ *Bibliotheque de l'homme publique*, par M. Condorcet, &c. tom. iii.

The

The clergy in France have been ſuppoſed, by many perſons in England, to merit their fate from their peculiar profligacy. But the idea is not accurate: that ſo large a body of men, poſſeſſed of very great revenues, ſhould be free from vice, would be improbable, or rather impoſſible; but they preſerved, what is not always preſerved in England, an exterior decency of behaviour. One did not find among them poachers or fox-hunters, who, having ſpent the morning in ſcampering after hounds, dedicate the evening to the bottle, and reel from inebriety to the pulpit. Such advertiſements were never ſeen in France as I have heard of in England:—*Wanted a curacy in a good ſporting country, where the duty is light, and the neighbourhood convivial.* The proper exerciſe for a country clergyman is the employment of agriculture; which demands ſtrength and activity—and which, vigorouſly followed, will fatigue enough to give eaſe its beſt reliſh. A ſportſman parſon may be, as he often is in England, a good ſort of a man, and *an honeſt fellow*; but certainly this purſuit, and the reſorting to obſcene comedies, and kicking their heels in the jig of an aſſembly, are not the occupations for which we can ſuppoſe tythes were given *. Whoever will give any attention to the demands of the clergy in their *cahiers*, will ſee, that there was, on many topics, an ill ſpirit in that body. They maintain, for inſtance, that the liberty of the preſs ought rather to be reſtrained than extended †: that the laws againſt it ſhould be renewed and executed ‡: that admiſſion into religious orders ſhould be, as formerly, at ſixteen years of age §: that *lettres de cachet* are uſeful, and even neceſſary ‖. They ſolicit to prohibit all diviſion of commons ¶;—to revoke the edict allowing incloſures **; that the export of corn be not allowed ††; and that public granaries be eſtabliſhed ‡‡.

The ill effects of the revolution have been felt more ſeverely by the manufacturers of the kingdom, than by any other claſs of the people. The rivalry of the Engliſh fabrics in 1787 and 1788, was ſtrong and ſucceſsful; and the confuſions that followed in all parts of the kingdom, had the effect of leſſening the incomes of ſo many landlords, clergy, and men in public employments; and ſuch numbers fled from the kingdom, that the general maſs of the conſumption of national fabrics ſunk perhaps three fourths. The men, whoſe incomes were untouched, leſſening their conſumption greatly, from an apprehenſion of the unſettled ſtate of things: the proſpects of a civil war, ſuggeſted to every man, that his ſafety, perhaps his future bread, depended on the money which he could hoard. The inevitable conſequence, was turning abſolutely out of employment immenſe numbers of workmen. I have, in the diary of the journey, noticed the infinite miſery to which I was a witneſs at Lyons, Abbeville, Amiens, &c and by intelligence I underſtood that it was ſtill worſe at Rouen: the fact could not be otherwiſe. This effect, which was abſolute death, by ſtarving many thouſands of families, was a reſult, that in my opinion might have been avoided. It flowed only from carrying things to extremities—from driving the nobility out of the kingdom, and ſeizing, inſtead of regulating, the whole regal authority. Theſe violences were not neceſſary to liberty; they even deſtroyed true liberty, by giving

* Nothing appears ſo ſcandalous to all the clergy of Europe, as their brethren in England dancing at public aſſemblies; and a biſhop's wife engaged in the ſame amuſement, ſeems to them as prepoſterous as a biſhop, in his lawn ſleeves, following the ſame diverſion, would to us. Probably both are wrong.

† *Saintonge* p. 24.—*Limoges* p. 6. &c. ‡ *Lyon*. p. 13.—*Dourdon* p. 5.
§ *Saintonge*, p. 26.—*Montargis* p. 10. ‖ *Limoges*, p. 22. ¶ *Troyes*, p. 11.
** *Metz*. p. 11. †† *Rouen*, p. 24. ‡‡ *Laon*, p. 11.—*Dourdon*, p. 17.

the government of the kingdom, in too great a degree, to Paris, and to the populace of every town.

The effect of the revolution, to the ſmall proprietors of the kingdom, muſt, according to the common nature of events, be *in the end* remarkably happy; and had the new government adopted any principles of taxation, except thoſe of the *œconomiſtes*, eſtabliſhing at the ſame time an abſolute freedom in the buſineſs of incloſure, and in the police of corn, the reſult would probably have been advantageous, even at this recent period. The committee of impoſts* mention (and I doubt not their accuracy) the proſperity of agriculture, in the ſame page in which they lament the depreſſion of every other branch of the national induſtry. Upon a moderate calculation, there remained, in the hands of the claſſes depending on land, on the account of taxes in the years 1789 and 1790, at leaſt 300,000,000 livres; the execution of *corvées* was as lax as the payment of taxes. To this we are to add two years tythe, which I cannot eſtimate at leſs than 300,000,000 livres more. The abolition of all feudal rents, and payments of every ſort, during thoſe two years, could not be leſs than 100,000,000 liv., including ſervices. But all theſe articles, great as they were, amounting to near 800,000,000 livres were leſs than the immenſe ſums that came into the hands of the farmers by the high price of corn throughout the year 1789; a price ariſing almoſt entirely from Monſ. Necker's fine operations in the corn trade, as it has been proved at large; it is true there is a deduction to be made on account of the unavoidable diminution of conſumption in every article of land produce, not eſſentially neceſſary to life: every object of luxury, or tending to it, is leſſened greatly. But after this diſcount is allowed, the balance, in favour of the little proprietor farmers, muſt be very great. The benefit of ſuch a ſum, being added as it is to the capital of induſtry, needs no explanation. Their agriculture muſt be invigorated by ſuch wealth—by the freedom enjoyed by its profeſſors, by the deſtruction of its innumerable ſhackles; and even by the diſtreſſes of other employments, occaſioning new and great inveſtments of capital in land: and theſe leading facts will appear in a clearer light, when the prodigious diviſion of landed property in France is well conſidered; probably half, perhaps two-thirds, of the kingdom are in poſſeſſion of little proprietors, who paid quit-rents, and feudal duties, for the ſpots they farmed. Such men are placed at once in comparative affluence; and as eaſe is thus acquired by at leaſt half the kingdom, it muſt not be ſet down as a point of trifling importance. Should France eſcape a civil war, ſhe will, in the proſperity of theſe men, find a reſource which politicians at a diſtance do not calculate. With renters the caſe is certainly different; for, beyond all doubt, landlords will, ſooner or later, avail themſelves of theſe circumſtances, by advancing their rents; acting in this reſpect as in every other country is common; but they will find it impoſſible to deprive the tenantry of a vaſt advantage, neceſſarily flowing from their emancipation.

The confuſion which has ſince ariſen in the finances, owing almoſt entirely to the mode of taxation adopted by the aſſembly, has had the effect of continuing to the preſent moment (1791) a freedom from all impoſt to the little proprietors, which, however dreadful its general effects on the national affairs, has tended ſtrongly to enrich this claſs.

The effects of the revolution, not on any particular claſs of cultivators, but on agriculture in general, is with me, I muſt confeſs, very queſtionable; I ſee no benefits flowing *particularly* to agriculture, (liberty applies equally to *all* claſſes, and is not yet

* *Rapport le 6 Decembre 1790, ſur les moyens de pourvoir aux depenſes pour 1791*, p. 4.

ſufficiently eſtabliſhed for the protection of *property*,) except the caſe of tythes; but I ſee the riſe of many evils; reſtrictions and prohibitions on the trade of corn—a varying land-tax—and impeded incloſures, are miſchiefs on *principle*, that may have a generative faculty; and will prove infinite draw-backs from the proſperity which certainly was attainable. It is to be hoped, that the good ſenſe of the aſſembly will reverſe this ſyſtem by degrees; for, if it is not reverſed, AGRICULTURE CANNOT FLOURISH.

The effect of the revolution, on the public revenue, is one great point on which Monſ. de Calonne lays conſiderable ſtreſs; and it has been ſince urged in France, that the ruin of 30,000 families, thrown abſolutely out of employment, and conſequently out of bread, in the collection of the taxes on ſalt and tobacco only, has had a powerful influence in ſpreading univerſal diſtreſs and miſery. The public revenue ſunk, in one year, 175 millions: this was not a *loſs* of that ſum; the people to whom aſſignats were paid on that account loſt no more than the diſcount; the loſs, therefore, to the people to whom that revenue was paid, could amount to no more than from 5 to 10 per cent *. But was it a loſs to the miſerable ſubjects who formerly paid thoſe taxes; and who paid them by the ſweat of their brows, at the expence of the bread out of their children's mouths, aſſeſſed with tyranny, and levied in blood? Do they feel a loſs in having 175 millions in their pockets in 1789, more than they had in 1788? and in poſſeſſing another 175 millions more in 1790, and the inheritance in future? Is not ſuch a change eaſe, wealth, life, and animation, to thoſe claſſes who, while the pens of political ſatiriſts ſlander all innovations, are every moment reviving, by inheriting from that revolution ſomething which the old government aſſuredly did not give? The revenue of the clergy may be called the revenue of the public:—thoſe to whom the difference between the preſent payment of one hundred and forty millions and the old tythes are a deduction of all revenue, are, beyond doubt, in great diſtreſs; but what ſay the farmers throughout the kingdom, from whom the deteſtable burthen of thoſe taxes was extorted? Do not they find their culture lightened, their induſtry freed, their products their own? Go to the ariſtocratical politician, at Paris, or at London, and you hear only of the ruin of France—go to the cottage of the *metayer*, or the houſe of the farmer, and demand of him what the reſult has been—there will be but one voice from Calais to Bayonne. If tythes were to be at one ſtroke aboliſhed in England †, no doubt the clergy would ſuffer, but would not the agriculture of the kingdom, with every man dependent on it, riſe with a vigour never before experienced.

Future Effects.

It would betray no inconſiderable preſumption to attempt to predict what will be the event of the revolution now paſſing in France; I am not ſo imprudent. But there are conſiderations that may be offered to the attention of thoſe who love to ſpeculate on future events better than I do. There are three apparent benefits in an ariſtocracy

* Since this was written, aſſignats fell, in Dec. 1791, and Jan. 1792, to 34 to 38 per cent. paid in ſilver, and 42 to 50 paid in gold, ariſing from great emiſſions; from the quantity of private paper iſſued; from forged ones being common; and from the proſpect of a war

† It is an error in France to ſuppoſe, that the revenue of the church is ſmall in England. The Royal Society of Agriculture at Paris ſtates that revenue at 210,000l.; it cannot be ſtated at leſs than five millions ſterling. *Mem preſenté par la S. R. d'Ag. a l'Aſſemblée Nationale* 1789, p. 52. One of the greateſt and wiſeſt men we have in England perſiſts in aſſerting it to be *much leſs* than two millions. From very numerous enquiries, which I am ſtill purſuing, I have reaſon to believe this opinion to be founded on inſufficient data.

forming the part of a conſtitution; firſt, the fixed, conſolidated, and hereditary importance of the great nobility, is for the moſt part a bar to the dangerous pretenſions, and illegal views, of a victorious and highly popular king, preſident, or leader. Aſſemblies, ſo elected, as to be ſwayed abſolutely by the opinion of the people, would frequently, under ſuch a prince, be ready to grant him much more than a well conſtituted ariſtocratic ſenate. Secondly, ſuch popular aſſemblies as I have juſt deſcribed, are ſometimes led to adopt deciſions too haſtily, and too imprudently; and particularly in the caſe of wars with neighbouring nations; in the free countries, we have known the commonalty have been too apt to call lightly for them. An ariſtocracy, not *unduly* influenced by the crown, ſtands like a rock againſt ſuch phrenzies, and hath a direct intereſt in the encouragement and ſupport of peaceable maxims. The remark is applicable to many other ſubjects, in which mature deliberation is wanted to ballaſt the impetuoſity of the people. I always ſuppoſe the ariſtocratic body well conſtituted upon the baſis of a ſufficient property, and at the ſame time no *unlimited* power in the crown, to throw all the property of the kingdom into the ſame ſcale, which is the caſe in England. Thirdly, ſtill greater benefits may ariſe from the exiſtence of an executive power, diſtinct from the legiſlative; muſt abſolutely depend on ſome intermediate and independent body between the people and the executive power. Every one muſt grant, that if there be no ſuch body, the people are enabled, when they pleaſe, to annihilate the executive authority, and aſſign it, as in the caſe of the long parliament, to committees of their own repreſentatives; or, which is the ſame thing, they may appear as they did at Verſailles, armed before the King, and inſiſt on his conſent to any propoſitions they bring him; in theſe caſes, the ſeeming advantages derived from a diſtinct executive power are loſt. And it muſt be obvious, that in ſuch a conſtitution as *the preſent* one of France, the kingly office can be put down as eaſily and as readily, as a ſecretary can be reprimanded for a falſe entry in the journals. If a conſtitution be good, all great changes in it ſhould be eſteemed a matter of great difficulty and hazard: it is in bad ones only that alterations ſhould not be looked upon in a formidable light.

That theſe circumſtances may prove advantages in an ariſtocratical portion of a legiſlature, there is reaſon to believe; the inquiry is, whether they be counter-balanced by poſſible or probable evils. May there not come within this deſcription, the danger of an ariſtocracy uniting with the crown againſt the people? that is to ſay, influencing, by weight of property and power, a great maſs of the people dependent—againſt the reſt of the people who are independent? Do we not ſee this to be very much the caſe in England at this moment? To what other part of our conſtitution is it imputable that we have been infamouſly involved in perpetual wars, from which none reap any benefit but that tribe of vermin which thrive moſt when a nation moſt declines; contractors, victuallers, paymaſters, ſtock-jobbers, and money-ſcriveners: a ſet by whom miniſters are ſurrounded; and in favour of whom whole claſſes amongſt the people are beggared and ruined. Thoſe who will aſſert a conſtitution can be good * which ſuffers theſe things, ought at leaſt to agree, that ſuch an one as would not ſuffer them would be much better †.

If

* It ought not to be allowed even tolerable, for this plain reaſon, ſuch public extravagance engenders taxes to an amount that will ſooner or later force the people into reſiſtance, which is always the deſtruction of a conſtitution; and ſurely that muſt be admitted bad, which carries to the moſt careleſs eye the ſeeds of its own deſtruction. Two hundred and forty millions of public debt in a century is in a ratio impoſſible to be ſupported; and therefore evidently ruinous.

† "The direct power of the King of England," ſays Mr. Burke, "is conſiderable. His indirect is great indeed. When was it that a King of England wanted wherewithal to make him reſpected, courted,

If an ariſtocracy hath thus its advantages and diſadvantages, it is natural to inquire, whether the French nation be likely to eſtabliſh ſomething of a ſenate, that ſhall have the advantages without evils. If there ſhould be none, no popular repreſentatives will ever be brought, with the conſent of their conſtituents, to give up a power in their own poſſeſſion and enjoyment. It is experience alone, and long experience, that can ſatisfy the doubts which every one muſt entertain on this ſubject. What can we know, experimentally, of a government which has not ſtood the brunt of unſucceſsful and of ſucceſsful wars? The Engliſh conſtitution has ſtood this teſt, and has been found deficient; or rather, as far as this teſt can decide any thing, has been proved worthleſs; ſince, in a ſingle century, it has involved the nation in a debt of ſo vaſt * a magnitude, that every bleſſing which might otherwiſe have been perpetuated is put to the ſtake; ſo that if the nation do not make ſome change in its conſtitution, it is much to be dreaded that the conſtitution will ruin the nation. Where practice and experience have ſo utterly failed, it would be vain to reaſon from theory: and eſpecially on a ſubject on which a very able writer has ſeen his own prediction ſo totally erroneous: "In the monarchical ſtates of Europe, it is highly improbable that any form of properly equal government ſhould be eſtabliſhed for many ages; the people, in general, and eſpecially in France, being proud of their monarchs, even when they are oppreſſed by them †."

In regard to the future conſequences of this ſingular revolution, as an example to other nations, there can be no doubt but the ſpirit which has produced it, will ſooner or later ſpread throughout Europe, according to the different degrees of illumination amongſt the common people; and it will prove either miſchievous or beneficial, in proportion to the previous ſteps taken by government. It is unqueſtionably the ſubject of all others the moſt intereſting to every claſs, and even to every individual of a modern ſtate; the great line of diviſion, into which the people divides, is, 1ſt, thoſe that have property; and, 2d, others that have none. The events that have taken place in France, in many reſpects have been ſubverſive of property; and have been effected by the lower people, in direct oppoſition to the nominal legiſlature; yet their conſtitution began its eſtabliſhment with a much greater degree of regularity, by a formal election of repreſentatives, than there is any probability of ſeeing in other countries. Revolutions will there be blown up from riotous mobs—from the military called out to quell them, but refuſing obedience and joining the inſurgents. Such a flame, ſpreading rapidly through a country, muſt prove hoſtile, and more fatal to property, than any thing that has prevailed in France. The probability of ſuch events, every one muſt allow to be not inconſiderable; the ruin that muſt attend them cannot be doubted; for they would tend to produce not a National Aſſembly, and a free conſtitution, but an univerſal anarchy and confuſion. The firſt attempt towards a democracy in England would be the com-

or perhaps even feared in every ſtate in Europe: it is in ſuch paſſages as theſe, that this elegant writer lays himſelf open to the attacks formidable, becauſe juſt, of men who have not an hundredth part of his talents. Who queſtions, or can queſtion, the power of a prince that in leſs than a century has expended above 1000 millions, and involved his people in a debt of 240? The point in debate is not the exiſtence of power, but its exceſs. What is the conſtitution that generates or allows of ſuch expences? The very miſchief complained of is here wrought into a merit, and brought in argument to prove that exaggerated power is ſalutary.

* This debt, and our enormous taxation, are the beſt anſwer the National Aſſembly gives to thoſe who would have had the Engliſh government, with all its faults on its head, adopted in France; nor was it without reaſon ſaid by a popular writer, that a government, formed like the Engliſh, obtains more revenue than it could do, either by direct deſpotiſm, or in a full ſtate of freedom.

† Dr. Prieſtley's Lectures on Hiſt. 4to. 1788. p. 3. 317.

people demanding an admiſſion and voice in the veſtries, and voting to themſelves whatever rates they thought proper to appropriate; which, in fact, would be an agrarian law. Can there be ſo much ſupineneſs in the preſent governments of Europe, as to ſuppoſe, that old principles and maxims will avail any longer? Can ſuch ignorance of the human heart, and ſuch blindneſs to the natural courſe of events be found, as the plan of rejecting all innovations, leſt they ſhould lead to greater? There is no government to be found, that does not depend, in the laſt reſort, on a military power; and if that fail them, is not the conſequence eaſily ſeen? A new policy muſt either be adopted, or all governments we know will be ſwept from their very foundations. This policy muſt conſiſt, firſt, in making it the intereſt, as much as poſſible, of every claſs in the ſtate except thoſe abſolutely without property *, to ſupport the eſtabliſhed government; and alſo to render it as palatable, as the ſecurity of property will allow, even to theſe; farther than this none can look, for it is ſo directly the intereſt of the people, *without property*, to divide with thoſe *who have it*, that no government can be eſtabliſhed which ſhall give the poor an equal intereſt in it with the rich †;—the viſible tangible intereſt of the poor (if I may uſe the expreſſions), and not the ultimate and remote, which they will never voluntarily regard, is a *pure* democracy, and a conſequent diviſion of property the ſure path to anarchy and deſpotiſm. The means of making a government reſpected and beloved are, in England, obvious; taxes muſt be immenſely reduced; aſſeſſments on malt, leather, candles, ſoap, ſalt, and windows, muſt be aboliſhed or lightened; the funding ſyſtem, the parent of taxation, annihilated for ever, by taxing the intereſt of the public debt—the conſtitution that admits a debt carries in its vitals the ſeeds of its deſtruction; tythes ‡ and teſts aboliſhed; the repreſentation of parliament reformed, and its duration ſhortened; not to give the people, without property, a predominancy, but to prevent that corruption in which our debts and taxes have originated; the utter deſtruction of all monopolies, and, among them, of all charters and corporations; game made property, and belonging to the poſſeſſor of one acre, as much

* The repreſentation of mere population is as groſs a violation of ſenſe, reaſon, and theory, as it is found pernicious in practice; it gives to ignorance to govern knowledge; to uncultivated intellect the lead of intelligence; to ſavage force the guide of law and juſtice; and to folly the governance of wiſdom. Knowledge, intelligence, information, learning, and wiſdom, ought to govern nations; and theſe are all found to reſide moſt in the middle claſſes of mankind; weakened by the habits and prejudices of the great, and ſtifled by the ignorance of the vulgar.

† Thoſe who have not attended much to French affairs, might eaſily miſtake the repreſentation of territory and contribution in the French conſtitution, as ſomething ſimilar to what I contend for—but nothing is more remote: the number choſen is of little conſequence, while perſons without property are the electors. Yet Mr. Chriſtie ſays, vol. i. p. 196. that property is a baſe on which repreſentation ought to be founded; and it is plain he thinks that property is repreſented, though the repreſentatives of the property are elected by men that do not poſſeſs a ſhilling!- It is not that the proprietors of property ſhould have voices in the election proportioned to their property, but that men who have a direct intereſt in the plunder or diviſion of property ſhould be kept at a diſtance from power. Here lies the great difficulty of modern legiſlation, to ſecure property, and at the ſame time to ſecure freedom to thoſe that have no property. In England there is much of this effected for the ſmall portion of every man's income that is left to him after public plunder is ſatiated (the poor, the parſon, and the King take 50 to 60 per cent. of every man's rent) but the reſt is ſecure. In America the poor, the parſon, and the King take nothing (or next to nothing), and the whole is ſecure. In France ALL ſeems to be at the mercy of the populace.

‡ The exaction of tythes is ſo abſurd and tyrannical an attack on the property of mankind, that it is almoſt impoſſible for them to continue in any country in the world half a century longer. To pay a man by force 100l. a year, for doing by deputy what would be much better done for 10l. is too groſs an impoſition to be endured. To levy that 1000l. in the moſt pernicious method that can wound both property and liberty, are circumſtances congenial to the tenth century, but not to the eighteenth. Italy, France, and America, have ſet noble examples for the imitation of mankind; and thoſe countries that do not follow them, will ſoon be as inferior in cultivation as they are in policy.

as to him who has a thouſand; and, laſtly, the laws, both criminal and civil, to be thoroughly reformed.—Theſe circumſtances include the great evils of the Britiſh conſtitution; if they be remedied, it may enjoy even a Venetian longevity; but if they be allowed, like cancerous humours to prey on the nobler parts of the political ſyſtem, this boaſted fabric may not exiſt even twenty years. To guard property effectually, and to give permanency to the new ſyſtem, the militia laws ought all to be repealed. When we ſee, as in all the monarchies of Europe, the government only armed, deſpotiſm is eſtabliſhed. When thoſe who have property alone are armed, how ſecure the people from oppreſſion?—When thoſe who have no property are armed, how prevent their ſeizing the property of others?—Perhaps the beſt method of guarding againſt theſe contrary evils, is to embody, in a national militia, all who have property; and, at the ſame time to allow arms (unembodied) to all citizens indiſcriminately: we ſee in the caſe of Berne, that the people being armed, keeps an ariſtocracy in ſuch order, that great oppreſſions are unknown. An army was always dangerous; and in the probable ſtate of Europe, it may be doubly ſo; diſcipline preſerved, it cemented deſpotiſm; undiſciplined, it may unite with the people of no property, and produce anarchy and ruin. There ſeems to be no ſufficient guard upon it, but a national militia, formed of every man that poſſeſſes a certain degree of property, rank and file as well as officers *.—Such a force in this iſland, would probably amount to above one hundred thouſand men; and would be amply ſufficient for repreſſing all thoſe riots, whoſe object might be, immediately or ultimately, the democratic miſchief of transferring property †. This for a free government:—deſpotic ones, that would wiſh to eſcape deſtruction,

* The late riots at Birmingham ought to convince every man, who looks to the preſervation of peace, that a militia of property is abſolutely neceſſary; had it exiſted at that town, no ſuch infamous tranſactions could have taken place, to the diſgrace of the age and nation. Thoſe riots may convince us how inſecure our property really is in England, and how very imperfect that POLITICAL SYSTEM, which could, twice in ten years, ſee two of the greateſt towns in England at the mercy of a vile mob. The military muſt, in relation to the greater part of the kingdom, be always at a diſtance; but a militia is on the ſpot, and eaſy to be collected, by previous regulations, at a moment's warning.

† The claſs of writers who wiſh to ſpread the taſte of revolutions, and make them every where the order of the day, affect to confound the governments of France and America, as if eſtabliſhed on the ſame principles; if ſo, it is a remarkable fact that the reſult ſhould, to appearance, turn out ſo differently; but a little examination will convince us, that there is ſcarcely any thing in common between thoſe governments, except the general principle of being free. In France, the populace are electors, and to ſo low a degree that the excluſions are of little account; and the qualifications for a ſeat in the provincial aſſemblies, and in the national one, are ſo low that the whole chain may be completed, from the firſt elector to the legiſlator, without a ſingle link of what merits the name of property. The very reverſe is the caſe in America, there is not a ſingle ſtate in which voters muſt not have a qualification of property; in Maſſachuſets and New Hampſhire, a freehold of 3l. a year, or other eſtate of 61 value; Connecticut is a country of ſubſtantial freeholders, and the old government remains: in New-York, electors of the ſenate muſt have a property of 100l. free from debts; and thoſe of the aſſembly, freeholds of 40s a year, rated and paying taxes; in Penſylvania, payment of taxes is neceſſary; in Maryland, the poſſeſſion of 50 acres of land, or other eſtate worth 30l.; in Virginia, 25 cultivated acres, with a houſe on it; in North Carolina, for the ſenate 50 acres, and for the aſſembly payment of taxes; and in all the ſtates there are qualifications much more conſiderable, neceſſary for being eligible to be elected. In general it ſhould be remembered, that taxes being ſo very few, the qualification of paying them excludes vaſtly more voters than a ſimilar regulation in Europe. In conſtituting the legiſlatures alſo, the ſtates all have two houſes, except Penſylvania. And Congreſs itſelf meets in the ſame form. Thus a ready explanation is found of that order and regularity, and ſecurity of property, which ſtrikes every eye in America; a contraſt to the ſpectacle which France has exhibited, where confuſion of every ſort has operated, in which property is very far from ſafe; in which the populace legiſlate and then execute, not laws of their repreſentatives, but of their own ambulatory wills; in which, at this moment (March 1792) they are a ſcene of anarchy, with every ſign of a civil war commencing. Theſe two great experiments, as far as they have gone, ought to pour conviction in every mind, that order and property never can be ſafe if the right of election is perſonal, inſtead of being attached to property; and

tion, muſt emancipate their ſubjects, becauſe no military conformation can long ſecure the obedience of ill-treated ſlaves; and while ſuch governments are giving to their people a conſtitution worth preſerving, they ſhould, by an abſolute renunciation of all the views of conqueſt, make a ſmall army as efficient for good purpoſes, as a large force for ambitious ones; this new-modelled military ſhould conſiſt, rank and file, of men intereſted in the preſervation of property and order: were this army to conſiſt merely of nobility, it would form a military ariſtocracy, as dangerous to the prince as to the people; it ſhould be compoſed, indiſcriminately, of individuals, drawn from all claſſes, but poſſeſſing a given property.—A good government, thus ſupported, may be durable: bad ones will be ſhivered to pieces by the new ſpirit that ferments in Europe.

The candid reader will, I truſt, ſee, that in whatever I have ventured to advance on ſo critical a ſubject as this great and unexampled revolution, I have aſſigned the merit I think due to it, which is the deſtruction of the old government, and not the eſtabliſhment of the new. All that I ſaw, and much that I heard in France, gave me the cleareſt conviction, that a change was neceſſary for the happineſs of the people, a change that ſhould limit the royal authority; that ſhould reſtrain the feudal tyranny of the nobility; that ſhould reduce the church to the level of good citizens; that ſhould correct the abuſes of finance; that ſhould give purity to the adminiſtration of juſtice; and that ſhould place the people in a ſtate of eaſe, and give them weight enough to ſecure this bleſſing. Thus far I muſt ſuppoſe every friend of mankind agreed. But whether, in order to effect thus much, all France were to be overthrown, ranks annihilated, property attacked, the monarchy aboliſhed, and the king and royal family trampled upon; and, above all the reſt, the whole effect of the revolution, good or bad, put on the iſſue of a conduct which, to ſpeak in the mildeſt language, made a civil war probable;—this is a queſtion abſolutely diſtinct. In my private opinion, theſe extremities were not neceſſary; France might have been free without violence; a neceſſitous court, a weak miniſtry, and a timid prince, could have refuſed nothing to the demands of the ſtates, eſſential to public happineſs, the power of the purſe would have done all that ought to have been done. The weight of the commons would have been predominant; but it would have had checks and a controul, without which power is not conſtitution, but tyranny.—While, however, I thus venture to think that the revolution might have been accompliſhed upon better principles, becauſe probably more durable ones, I do not therefore aſſign the firſt National Aſſembly in the groſs to that total condemnation they have received from ſome very intemperate pens, and for this plain reaſon,

---

and whenever propoſitions for the reformation of our repreſentation ſhall be ſeriouſly conſidered, which is certainly neceſſary, nothing ought to be in contemplation but taking power from the crown and the ariſtocracy—not to give it to the mob, but to the middle claſſes of moderate fortune. The proprietor of an eſtate of 50l. a year is as much intereſted in the preſervation of order and of property, as the poſſeſſor of fifty thouſand; but the people without property have a direct and poſitive intereſt in public confuſion, and the conſequent diviſion of that property, of which they are deſtitute. Hence the neceſſity, a preſſing one in the preſent moment of a militia rank and file, of property; the eſſential counterpoiſe to aſſemblies in ale-houſe kitchens, clubbing their pence to have the *Rights of Man* read to them, by which ſhould be underſtood (in Europe, not in America) the right to plunder. Let the ſtate of France at preſent be coolly conſidered, and it will be found to originate abſolutely in population, without property being repreſented; it exhibits ſcenes ſuch as can never take place in America. See the National Aſſembly of a great empire, at the criſis of its fate, liſtening to the harangues of the Paris populace, the female populace of St. Antoine, and the preſident formally anſwering and flattering them! Will ſuch ſpectacles ever be ſeen in the American Congreſs? Can that be a well conſtituted government, in which the moſt precious moments are ſo conſumed? The place of aſſembling (Paris) is alone ſufficient to endanger the conſtitution.

becauſe

becauſe it is certain that they have not done much which was not called for by the people.

Before the revolution is condemned in the groſs, it ſhould be conſidered what extent of liberty was demanded by the three orders in their *cahiers*; and this in particular is neceſſary, ſince thoſe very *cahiers* are quoted to ſhew the miſchievous proceedings of the National Aſſembly. Here are a few of the ameliorations demanded; to have the trial by jury, and the *habeas corpus* of England *; to deliberate by head, and not by order, demanded *by the nobility themſelves* †; to declare all taxes illegal and ſuppreſſed —but to grant them anew for a year ‡; to aboliſh for ever the capitaineries §; to eſtabliſh a *caiſſe nationale ſeparée inacceſſible à toute influence du pouvoir executiff* ‖; that all the intendants ſhould be ſuppreſſed ‖; that no treaties of commerce ſhould be made but with the conſent of the ſtates ¶: that the orders of begging monks be ſuppreſſed **: that all monks be ſuppreſſed, and their goods and eſtates ſold ††: that tythes be for ever ſuppreſſed ‡‡; that all feudal rights, duties, payments, and ſervices, be aboliſhed §§: that ſalaries (*traitement pecuniare*) be paid to the deputies ‖‖; that the permanence of the National Aſſembly is a neceſſary part of its exiſtence ¶¶: that the Baſtille be demoliſhed ***: that the duties of *aides*, on wine, brandy, tobacco, ſalt, leather, paper, iron, oil, and ſoap, be ſuppreſſed †††: that the apanages be aboliſhed ‡‡‡; that the domaines of the king be alienated §§§: that the king's ſtuds (*haras*) be ſuppreſſed ‖‖‖‖‖; that the pay of the ſoldiers be augmented ¶¶¶; that the kingdom be divided into diſtricts, and the elections proportioned to population and to contributions ****; that all citizens paying a determinate quota of taxes vote in the parochial aſſemblies ††††: that it is indiſpenſable in the ſtates-general to conſult the Rights of Man ‡‡‡‡; that the deputies ſhall accept of no place, penſion, grace, or favour §§§§.

From this detail of the inſtructions given by the nation, I will not aſſert that every thing which the National Aſſembly has decreed is juſtifiable; but it may be very fairly concluded, that much the greater part of their arrets, and many that have been the moſt violently arraigned, are here expreſsly demanded. To reply that theſe demands are not thoſe of the nation at large, but of particular bodies only, is very wide from the argument; eſpecially as the moſt virulent enemies of the revolution, and particularly Meſſieurs Burke and De Calonne, have from theſe *cahiers*, deduced ſuch concluſions as

* *Nob. Auxois*, p. 23. *Artois*, p. 13. *T. Etat de Peronne*, p. 15. *Nob. Dauphiné*, p. 119.

† *Nob. Touraine*, p. 4. *Nob. Senlis*, p. 46. *Nob. Pays de Labour*, p. 3. *Nob. Queſnoy*, p. 6. *Nob. Sens*, p. 3. *Nob. Thimerais*, p. 3. *Clergé du Bourbonnois*, p. 6. *Clergé du Bas Limoſin*, p. 10.

‡ Too numerous to quote, of both Nobility and Tiers. § Many; Nobility as well as Tiers.

‖ *Nob. Sezanne*, p. 14. *T. Etat Metz*, p. 42. *T. Etat d'Auvergne*, p. 9. *T. Etat de Riom*, p. 23.

¶ *Nob. Nivernois*, p. 25. ** *Nob. Bas Limoſin*, p. 12 †† *T. Etat du Haut Vivarais*, p. 18. *Nob. Rheims*, p. 16. *Nob Auxerre*, p. 41. ‡‡ *Nob. Toulon*, p. 18. §§ Too many to quote.

‖‖ *Nob. Nomery en Lorain*, p. 10.

¶¶ *Nob. Mantes & Meulan*, p. 16. *Previns & Monteraux*, art. 1. *Rennes*, art. 19.

*** *Nob. Paris*, p. 14. ††† *Nob. Vitry le François*, MS. *Nob. Lyon*, p. 16. *Nob. Bugey*, p. 28. *Nob. Paris*, p. 22. ‡‡‡ *Nob. Ponthieu*, p. 32. *Nob. Chartres*, p. 19. *Nob. Auxerre*, art. 74. §§§ *Nob. Bugey*, p. 11. *Nob. Montargis*, p. 18 *Nob. Paris*, p. 16. *Nob. Bourbonnois*, p. 12. *Nob Nancy*, p. 23. *Nob. Angoumois*, p. 20. *Nob Pays de Labour*, fol. 9.

‖‖‖‖ *Nob Beauvois*, p. 18. *Nob. Troyes*, p. 25. ¶¶¶ *Nob Limoges*, p. 31.

**** *T. Etat de Lyon*, p. 7. *Niſmes*, p. 13. *Cotentin*, art. 7. †††† *T. Etat Rennes*, art. 15.

‡‡‡‡ *T. Etat Niſmes*, p. 11.

§§§§ *T. Etat Pont a Mouſſon*, p. 17. Mr. Burke ſays, "When the ſeveral orders, in their ſeveral bailliages, had met in the year 1789, to chooſe and inſtruct their repreſentatives, they were the people of France: whilſt they were in that ſtate, in no one of their inſtructions did they charge, or ever hint at any of thoſe things which have drawn upon the uſurping aſſembly the deteſtation of the rational part of mankind."

ſuited their purpoſe; and if they are made authority for condemning the tranſactions in that kingdom, they certainly are equal authority for ſupporting thoſe tranſactions. I ſhall make but one obſervation on theſe demands. The aſſemblies that drew them up, moſt certainly never demanded, in expreſs terms, the abolition of the monarchy, or the transfer of all the regal authority to the deputies; but let it be coolly conſidered, what ſort of a monarchy muſt neceſſarily remain, while an aſſembly is permanent, with power to aboliſh tythes; to ſuppreſs the intendants; not only to vote, but to keep the public money: to alienate the king's domains; and to ſuppreſs his ſtuds: to aboliſh the *capitaineries*, and deſtroy the Baſtille;—the aſſembly that is called upon to do all this, is plainly meant to be a body ſolely poſſeſſing the legiſlative authority; it is evidently not meant to petition the king to do it; becauſe they would have uſed, in this caſe, the form of expreſſion ſo common in other parts of the *cahiers*, *that His Majeſty will have the goodneſs*, &c.

The reſult of the whole inquiry cannot but induce temperate men to conclude, that the abolition of tythe, of feudal ſervices and payments, of the *gabelle* or ſalt-tax, of that on tobacco, of the *entrées*, of all exciſes on manufactures, and of all duties on tranſit, of the infamous proceedings in the old courts of juſtice, of the deſpotic practices of the old monarchy, of the militia regulations, of the monaſteries and nunneries, and of numberleſs other abuſes; I ſay, that temperate men muſt conclude, that the advantages derived to the nation are of the very firſt importance, and ſuch as muſt inevitably ſecure to it, as long as they continue, an uncommon degree of proſperity. The men who deny the benefit of ſuch events, muſt have ſomething ſiniſter in their views, or muddy in their underſtandings. On the other hand, the extenſive and unneceſſary ruin brought on ſo many thouſands of families, of all deſcriptions, by violence, plunder, terror, and injuſtice, to an amount that is ſhewn in the utter want of the precious metals, the ſtagnation of induſtry, and the poverty and miſery found amongſt many, is an evil of too great a magnitude to be palliated. The nouriſhment of the moſt pernicious cancer in the ſtate, public credit; the deluge of paper money; the violent and frivolous extinction of rank *; the new ſyſtem of taxation, apparently ſo hurtful to landed property; and a reſtricted corn trade; all theſe are great deductions from public felicity, and weigh the heavier in the ſcale, becauſe unneceſſary to effect the revolution. Of the nature and durableneſs of the conſtitution eſtabliſhed, prudent men will not be eager to propheſy: it is a new experiment †, and cannot be tried

* It is ſo becauſe the inequality remains as great as if titles had remained, but built on its worſt baſis, wealth. The nobility were bad, but not ſo bad as Mr. Chriſtie makes them; they did not wait till the *Etats Generaux*, before they agreed to renounce their pecuniary privileges, *Letters on the Rev. of France*, vol i p. 74. The firſt meeting of the ſtates was May 5, 1789; but the nobility aſſembled at the Louvre, December 20, 1788, addreſſed the king, declaring that intention.

† After all that has been ſaid of late years, on the ſubject of conſtitutions and governments by various writers in England, but more eſpecially in France, one circumſtance muſt ſtrike any attentive reader; it is, that none of the writers who have puſhed the moſt forward in favour of new ſyſtems, have ſaid any thing to convince the unprejudiced part of mankind, that experiment is not as neceſſary a means of knowledge in relation to government, as in agriculture, or any other branch of natural philoſophy. Much has been ſaid in favour of the American government, and I believe with perfect juſtice, *reaſoning as far as the experiment extends*; but it is fair to conſider it as an imperfect experiment, extending no further than the energy of perſonal virtue, ſeconded by the moderation attendant on a circulation not remarkably active. We learn, by Mr. Payne, that general Waſhington accepted no ſalary as commander of their troops, nor any as preſident of their legiſlature—an inſtance that does honour to their government, their country, and to human nature; but it may be doubted, whether any ſuch inſtances will occur two hundred years hence? The exports of the United States now amount to 20 millions of dollars; when they amount to 500 millions, when great wealth, vaſt cities, a rapid circulation, and, by conſequence, immenſe private fortunes are form-

tried or examined on old ideas; but the effects, good and bad, here arranged, in oppoſition to each other, are viſible to every eye; the advantages are recognized; the evils are felt. On theſe circumſtances we are competent to reaſon *.

1792.

IT may afford the reader ſome ſatisfaction to note a few circumſtances of the ſtate of France at the opening of 1792, which I draw from the correſpondence of ſome friends, on whoſe accuracy I can rely.

Agriculture.—Small proprietors, who farm their own lands, are in a very improved and eaſy ſituation; renters are proportionably ſo, to the degree in which their landlords have not been able to acquire in new rents, the payments from which the land has been freed. Owners of meadows, woods, and a variety of articles for which no tythe was paid before, gain much leſs than others whoſe property uſed to be ſubject to that burthen. In regard to the payment of rent, there is a diſtinction between the north and ſouth of the Loire; in the former, rents continue to be paid; but to the ſouth, many landlords have been unable to receive a penny; and here a difference is obſervable; abſentees, who were not beloved, or whoſe agents are diſliked, are in an ill ſituation; but others, who reſide, or who, though abſent, are beloved, are paid proportionally to the ability of the *metayer*, which ſpecies of tenant is chiefly found ſouth of the Loire. The laſt crop (of 1791) is ſaid to have been ſhort; in a good year, in Picardy, forty ſheaves gave a *ſeptier* of wheat, of 240lb.; but now it takes fifty to ſixty. This circumſtance, however, cannot be general, as the price plainly proves: for January 7th, 1792, price at Paris of wheat was 22 to 28 livres, with aſſignats at 36 per cent. diſcount, a remarkable proof, that the moſt depreciated paper currency will anſwer every purpoſe for objects of phyſical neceſſity, and daily conſumption. The diſcount on this paper, is greater than ever was foretold by thoſe who predicted an enormous riſe of all the neceſſaries of life; a proof how new the ſcience of politics is, and how little able the moſt ingenious men are to foretel the effects of any ſpecified event. The ſale of the national eſtates has been of late very ſlow, which is a ſtrange circumſtance, ſince the rapidity of their transfer ought to have been proportioned to the diſcount upon aſſignats, for an obvious reaſon; for, while land is to be acquired with money, the more depreciated paper is, the greater the benefit to the purchaſer. While the ſale of the eſtates laſted with any degree of briſkneſs, the common price, of ſuch as have come to my knowledge, was 20 to 30, and even more years purchaſe; at which rate the advantages attending inveſtments may be great.

---

ed, will ſuch ſpectacles be found? Will their government then be as faultleſs as it appears at preſent? It may. Probably it will ſtill be found excellent; but we have no conviction, no proof; it is in the womb of time—the experiment is not made. Such remarks, however, ought always to be accompanied with the admiſſion, that the Britiſh government has been experimented—With what reſult?—Let a debt of 240 millions—let ſeven years war—let Bengal and Gibraltar—let 30 millions ſterling of national burthens, taxes, rates, tythes, and monopolies—let theſe anſwer.—

* The groſs abuſe which has been thrown on the French nation, and particularly on their aſſemblies, in certain pamphlets, and without interruption, in ſeveral of our newſpapers, ought to be deprecated by every man who feels for the future intereſts of this country. It is in ſome inſtances carried to ſo ſcandalous an exceſs, that we muſt neceſſarily give extreme diſguſt to thouſands of people, who may hereafter have an ample opportunity to *vote* and *act* under the influence of impreſſions unfavourable towards a country that, unprovoked has loaded them with ſo much contumely; for a nation groaning under a debt of 240 millions that deadens the very idea of future energy, this ſeems, to uſe the mildeſt language, to be at leaſt very imprudent.

Commerce and manufactures.—The reſult of the vaſt diſcount upon aſſignats has, in relation to the national induſtry, been almoſt contrary to what many perſons, not ill-informed, expected. Early in the confuſion of the revolution, nothing ſuffered ſo ſeverely as manufactures; but I am now (1792) informed, that there is much more motion and employment in them than ſome time paſt, when the general aſpect of affairs was leſs alarming. The very circumſtance which, according to common ideas, ſhould have continued their depreſſion, has moſt unaccountably revived them in ſome meaſure; I mean the depreciation of the aſſignats. Paper currency has been at ſo low a pitch, that every ſpecies of goods has been preferred in payments; maſter manufacturers paying their workmen, &c. in aſſignats, by which bread is purchaſed at a price proportioned to the crop, can ſell the product of that labour to ſuch an advantage, as to create demand enough to animate their buſineſs: a moſt curious political combination, which ſeems to ſhew, that in circumſtances where evils are of the moſt alarming tendency, there is a re-action, an under-current, that works againſt the apparent tide, and brings relief, even from the very nature of the misfortune. Combine this with the point of depreſſion of England, in all her wars, as explained with ſuch talents by the ingenious Mr. Chalmers, and ſomething of a ſimilarity will ſtrike the reflecting reader. The loſs by the depreſſion of aſſignats has not been by any interior tranſactions, but by thoſe with foreign powers. In conſequence of it, the courſe of exchange roſe at laſt ſo high, that the loſs to the kingdom has been great, but by no means ſo great as ſome have imagined, who ſuppoſed the intercourſe to be moving in the ſame ratio as in preceding periods. But this is no light error; the evil of exchange, like all other political evils, corrects itſelf; when it is very much againſt a people, they neceſſarily leſſen their conſumption of foreign commodites; and on the contrary, foreign nations conſume *theirs* very freely, becauſe ſo eaſily paid for. Through the month of January, 1792, the courſe of exchange between us and Paris, has been about 18 on an average; reckoning the par at 30 (which, however, is not exact), here is 40 per cent againſt France; deduct 36 for the diſcount on aſſignats, and this apparent enormity of evil is reduced to 4 per cent. Through the month of January, 1791, the courſe was 25½; this was 15 per cent. diſadvantage, and deducting five for the diſcount on aſſignats, the real diſadvantage was ten. Thus the exchange in January, 1792, is 6 per cent more favourable to France than in 1791; a remark, however, which muſt not be extended to any other caſe, and touches not on the internal miſchiefs of a depreciated currency. It ſeems to ſhew, that the evils of their ſituation, ſo little underſtood by the generality of people here, are correcting themſelves, relative to foreigners, through the operation of the cauſes I have mentioned. It is at the ſame time to be remarked, that while the price of corn, and other things, in which there is no competition by foreigners, riſes merely on account of a ſcarcity, real or apprehenſive; at the ſame time, every thing bought by foreigners, or which can be bought by them, has riſen greatly; for inſtance, the cloth of Abbeville, a French commodity, has riſen from 30 livres to 40 livres the auln; and copper, a foreign commodity, has increaſed, it is aſſerted in the petition of the Norman manufacturers to the National Aſſembly, 70 per cent. Such a fabric may ſuffer: but if their pins ſell proportionably with other things, the evil, it muſt be admitted, tends to correct itſelf.

Finances.—The prominent feature is the immenſity of the debt, which increaſes every hour. That which bears intereſt may be about 5,000,000,000 liv.; and aſſignats, or the debt not bearing intereſt, may be groſsly eſtimated at 1,500,000,000 liv.; in all 6,500,000,000 liv. or 284,375,000l. ſterling, a debt of ſuch enormity, that nothing but the moſt regular, and well paid revenue, could enable the kingdom to ſupport it. The

annual *deficit* may be reckoned about 250,000,000 liv. *at preſent*, but improveable by a better collection of the revenue.

The following is the account for the month of February 1790:

Recette,	—	—	20,000,000
Depenſes extraordinaire de 1792,		—	12,000,000
Id. pour 1791,	—	—	2,000,000
Advances au de part de Paris,		—	1,000,000
Deficit,	—	—	43,000,000
			58,000,000

I am afraid that any attempt to ſupport ſuch infinite burthens muſt continue to deluge the kingdom with paper, till, like congreſs dollars in America, circulation ceaſes altogether. There ſeems to be no remedy but a bankruptcy, which is the beſt, eaſieſt, and moſt beneficial meaſure to the nation, that can be embraced; it is alſo the moſt juſt and the moſt honourable; all ſhifting expedients are, in fact, more miſchievous to the people, and yet leave government as deeply involved as if no recourſe had been made to them. If the *milice bourgeoiſe* of Paris is ſo intereſted in the funds as to render this too dangerous, there does not appear to be any other rule of conduct than one great and laſt appeal to the nation, declaring that they muſt either deſtroy public credit, or be deſtroyed by it. If the National Aſſembly have not virtue and courage enough thus to extricate France, ſhe muſt at all events remain, however free, in a ſtate of political debility.

The impoſſibility of levying the *œconomiſtes* land-tax, is found in France to be as great in practice as the principles of it were abſurd in theory. I am informed (Feb. 1792,) that the confuſion ariſing from this cauſe, in almoſt every part of the kingdom, is great *. The tax of 300 millions, laid on the rental of France, would not be more than 2s. 6d. in the pound; too great a burthen on juſt political principles, but not a very oppreſſive one, had it been once fairly aſſeſſed, and never afterwards varied. But, by purſuing the jargon of the *produit net*, and making it variable, inſtead of fixed, every ſpecies of inconvenience and uncertainty has ariſen. The aſſembly divided the total among the departments; the departments the *quotas* among the diſtricts; the diſtricts among the municipalities; and the municipalities aſſembled for the aſſeſſment of individuals: the ſame decree that fixed the tax at 300 millions, limited it alſo not to exceed one-fifth of the *produit net*; every man had therefore a power to reject any aſſeſſment that exceeded that proportion; the conſequence was, the total aſſigned to the municipalities was ſcarcely any where to be found, but upon large farms, let at a money-rent in the north of France; among the ſmall proprietors of a few acres, which ſpread over ſo large a part of the kingdom, they all ſcreened themſelves under definitions, of what the *produit net* meant; and the reſult was, that the month of December, which ought to have produced 40 millions, really produced but 14. So practicable has this viſionary nonſenſe of the *produit net* proved, under the diſpenſations of a mere democracy, though acting *nominally* † by repreſentatives. The fact has been, that this ill conceived and ill-laid land-

* The inequalities and the numerous injuſtices which have ſlipped into the valuations of landed property, excite a general diſcontent againſt the new ſyſtem of taxation.—Speech of the Preſident of the Diſt. of Tonnere at the bar.

† Whether nominally, or really, is not of conſequence, if effective qualifications of property be not at every ſtep the guard, as in the American conſtitution.

tax,

tax, which, under a different management, and under the orderly government of the *ſettled* part of America, might have been effectively productive, has been ſo contrived, that it never will, and never can produce what it was eſtimated at in France. The people without property have a direct intereſt in ſeconding the refuſals of others to pay, that are in the loweſt claſſes of property, and who can really ill afford it; one great objection to all land taxes, where poſſeſſions are much divided. With power in ſuch hands, the refuſal is effective, and the national treaſury is empty. But ſuppoſing ſuch enormous difficulties overcome, and theſe little properties valued and taxed on ſome practicable plan, from that moment there muſt be a new valuation every year; for, if one has wealth enough to improve beyond the capacity of the reſt, they immediately ſhift a proportion of their tax on him; and this has accordingly happened, early as it is in the day, and indeed is inherent in the nature of the tax as promulgated by the aſſembly *. Thus annual aſſeſſments, annual confuſion, annual quarrels and heart-burnings, and annual oppreſſion, muſt be the conſequence; and all this, becauſe a plain, ſimple, and practicable mode of aſſeſſment was not laid down by the legiſlature itſelf, inſtead of leaving it to be debated and fought through 500 legiſlatures, on the plan, purely ideal and theoretical, of the *œconomiſtes!*

Police of Corn.—The National Aſſembly has been of late repeatedly employed in receiving complaints from various departments, relative to the ſcarcity and high price of corn, and debates on it ariſe, and votes paſs, which are printed to ſatisfy the people that all precautions are taken to prevent exportation. Such a conduct ſhews, that they tread in the ſteps of Monſ. Necker, and that they conſequently may expect, with a crop but ſlightly deficient, to ſee a famine. In the *Gazette Nationale*, of March 6, 1792, I read, in the Journal of the Aſſembly, *Inquietudes—précautions priſes—commiſſaires envoyés—veiller à la ſubſiſtance du peuple—fonds pour acheter des grains chez l'etranger—dix millions*—&c. Now this is preciſely the blind and infatuated conduct of Monſ. Necker. If theſe ſteps are neceſſary to be taken, (which is impoſſible,) why talk of and print them? Why alarm the people by ſhewing yourſelves alarmed? Forty-five millions loſs, in the hands of M. Necker, purchaſed not three days corn for France; ten millions will not purchaſe one day's conſumption! but the report and parade of it will do more miſchief than the loſs of five times the quantity: without being in France, I am clear, and can rely enough upon principles to know, that theſe meaſures will RAISE, not ſink the price. One of the many inſtances in legiſlation, that proves the immenſe difference (regarding the caſes of France and the United States) between a repreſentation of mere population and one of property! *M—— pour prevenir les inquietudes qui pourroient arriver l'année prochaine et les ſuivantes, l'aſſemblée doit s'occuper dès ce moment d'un plan général ſur les ſubſtances*—There is but one plan, ABSOLUTE FREEDOM; and you will ſhew, by accepting or rejecting it, what claſs of the people it is that you repreſent. Proclaim a free trade, and from that moment ordain that an inkſtand be crammed inſtantly into the throat of the firſt member that pronounces the word corn.

Prohibition of the Export of the Raw Materials of Manufactures.—The laſt information I have had from France is a confirmation of the intelligence our newſpapers gave, that the National Aſſembly had ordered a decree to be prepared for this prohibition. It ſeems that the maſter manufacturers of various towns, taking the advantage of the great decline of the national fabrics, made heavy complaints to the National Aſſembly; and,

* "*Auſſitot que les opérations preliminaires ſeront terminées les officiers municipaux et les commiſſaires adjoints ſeront, en leur ame et conſcience l'evaluation du revenue net des differentes proprietés foncières de la communanté ſection par ſection.*—*Journal des Etats Gen.* tom. xvi. p. 510.

among other means of redreſs, demanded a prohibition of the export of cotton, ſilk, wool, leather, and, in general, of all raw materials. It was ſtrenuouſly oppoſed by a few men, better acquainted than the common maſs with political principles, but in vain; and orders were given to prepare the decree, which I am aſſured will paſs. As I have in various papers in the "Annals of Agriculture" entered much at large into this queſtion, I ſhall only mention a few circumſtances here, to convince France, if poſſible, of the miſchievous and moſt pernicious tendency of ſuch a ſyſtem, which will be attended with events little thought of at preſent in that kingdom. As it is idle to have recourſe to reaſoning when facts are at hand, it is only neceſſary to deſcribe the effect of a ſimilar prohibition in the caſe of wool in England:—1ſt, The price is ſunk by it 50 per cent. below that of all the countries around us, which, as is proved by documents unqueſtionable, amounts to a land-tax of between three and four millions ſterling; being ſo much taken from land and given to manufactures. 2d, Not to make them flouriſh; for a ſecond curious fact is, that of all the great fabrics of England that of wool is leaſt proſperous, and has been regularly moſt complaining, of which the proofs are before the public: the policy therefore has failed; and becauſe it fails in England, it is going to be adopted in France. The home monopoly of wool gives to the manufacturers ſo great a profit, that they are not ſolicitous about any extenſion of their trade beyond the home product; and to this it is owing that no foreign wool, Spaniſh alone excepted, (which is not produced here,) is imported into England. The ſame thing will happen in France; the home-price will fall; the landed intereſt will be robbed; and the manufacturer, taſting the ſweets of monopoly, will no longer import as before: the fabric at large will receive no increaſe; and all the effect will be, to give the maſter manufacturer a great profit on a ſmall trade: he will gain, but the nation will loſe. 3d, The moſt flouriſhing manufacture of England is that of cotton, of which the manufacturer is ſo far from having a monopoly, that $\frac{19}{20}$ths of the material are imported under a duty, and our own exportable duty free. The next (poſſibly the firſt) is that of hardware; Engliſh iron is exported duty free, and the import of foreign pays 2l. 16s. 2d. a ton; Engliſh coals exported in vaſt quantities. Glaſs exhibits the ſame ſpectacle; Engliſh kelp exportable duty free, and 16s. 6d. a ton on foreign; raw ſilk pays 3s. a lb. on import; export of Britiſh hemp and flax undreſſed is free, foreign pays a duty on import; Britiſh rags, for making paper, exportable duty free; unwrought tin, lead, and copper all exportable either free, or under a ſlight duty. The immenſe progreſs made by theſe manufactures, particularly hardware, cotton, glaſs, flax, and earthen-ware, another in which no monopoly of material can exiſt, is known to all Europe; they are among the greateſt fabrics in the world, and have riſen rapidly; but note (for it merits the attention of France) that wool has experienced no ſuch riſe *. Our policy in wool ſtands on fact, therefore convicted of rottenneſs; and this is preciſely the policy which the new government of France copies, and extends to every raw material! 4th, The free trade in raw materials is neceſſary, like the free trade in corn, not to ſend thoſe materials abroad, but to ſecure their production at home; and lowering the price, by giving a monopoly to the buyer, is not the way to encourage farmers to produce. 5th, France imports ſilk and wool to the amount of 50 or 60 millions a year, and exports none, or next to none; why prohibit an export, which in ſettled times does not take place? At the preſent moment, the export either takes place, or it does *not* take place; if the latter, why prohibit a trade which has no exiſtence? If it does not take place, it proves that the manufac-

* Exports 1757, 4,758,095l. In 1767, 4,277,462. In 1777, 3,743,537l. In 1787, 3,687,795l. See this ſubject fully examined, Annals of Agriculture, vol. x. p. 235.

turers

turers cannot buy it as heretofore: is that a reaſon why the farmers ſhould not produc it. Your manufacturers cannot buy, and you will not let foreigners; what is that bi telling your huſbandmen that they ſhall not produce? Why then do the manufacture: aſk this favour? They are cunning, they very well know why: they have the ſame vie as their brethren in England—ſolely that of SINKING THE PRICE, and thereby puttin money in their own pockets, at the expence of the landed intereſt! 6th, All the towr of France contain but ſix millions of people; the manufacturing towns not two mill ons: why are twenty millions in the country to be cheated out of their property, i order to favour one-tenth of that number in towns? 7th, In various paſſages of the travels, I have ſhewn the wretched ſtate of French agriculture, for want of more ſheep the new ſyſtem is a curious way to effect an increaſe - *by lowering the profit of keepi them.* 8th, The French manufacturers, under the *old* ſyſtem of *freedom*, bought ra materials from other nations, to the amount of ſeveral millions, beſides working up a the produce of France; if ſinking the price be not their object, what is. Can they d ſire to do more than this? If under their new government their fabrics do not flouri as under the old one, is that a reaſon for prohibition and reſtriction, for robbery an plunder of ... attended intereſt, to make good their own loſſes? And if ſuch a deman is good logic in a manufacturer's counting-houſe, is that a reaſon for its being receive in a NATIONAL ASSEMBLY!!

One of the moſt curious enquiries that can be made by a traveller, is to endeavo to aſcertain how much per cent. a capital inveſted in land, and in farming-ſtock, will r turn for cultivation in different countries: no perſon, according to my knowledge, h attempted to explain this very important but difficult problem. The price of land, t intereſt of money, the wages of labour, the rates of all ſorts of products, and the amou of taxes, muſt be calculated with ſome degree of preciſion, in order to analyſe this con bination. I have for many years attempted to gain information on this curious poin concerning various countries. If a man in England buys land rented at 12s. an acr at thirty years purchaſe, and cultivates it himſelf, making five rents, he will not mak more than from 4½ to 5 per cent. and at moſt 6, ſpeaking of general culture, and n eſtimating ſingular ſpots or circumſtances, and including the capital inveſted in both lan and ſtock. I learn, from the correſpondence of the beſt farmer, and the greateſt ch racter the new world has produced, certain circumſtances, which enable me to aſſert wi confidence, that money inveſted on the ſame principles, in the middle ſtates of Nort America, will yield conſiderably more than double the return in England, and in mar inſtances the treble of it. To compare France with theſe two caſes, is very difficul had the National Aſſembly done for the agriculture of the kingdom what France had right to expect from FREEDOM, the account would have been advantageous. For bu ing at 30 years purchaſe, ſtocking the ſame as in England, and reckoning products per cent lower in price (about the fact), the total capital would have paid from 5½ to 6 per cent.; land-tax reckoned at 3s. in the pound, which is the proportion of the tot tax to the rental of the kingdom *. It is true, that the courſe of exchange would mak

* But this land-tax is variable, and therefore impoſſible to eſtimate accurately; if you remain no bett farmers than your French neighbours, it is ſo much; but if you improve, you are raiſed, and they a ſunk; all that has, and can be ſaid againſt tythes, bears with equal force againſt ſuch a tax. And thoug this impoſition cannot go by the preſent law beyond 4s. in the pound, it would be very eaſy to ſhew, by plain calculation, that 4s. in the pound, riſing with improvement, is a tax impoſſible to be borne by one wh improves; and conſequently, that is a direct tax on improvement; and it is a tax in the very worſt form ſince the power to lay and inforce it, is not in the government of the kingdom, but in the municipal goverr ment of the pariſh. Your neighbour, with whom you may be on ill terms, has the power to tax you; n ſuch private heart-burnings and tyranny are found in exciſes.

a

an enormous difference, for when exchange is at 15, this ratio per cent. inſtead of 5 becomes 11, if the capital is remitted from Britain: but as that immenſe loſs (50 per cent) on the exchange of France ariſes from the political ſtate of the kingdom, the ſame circumſtances which cauſe it would be eſtimated at ſo much hazard and danger. But bring to account the operations of the National Aſſembly, relating to the non-incloſure of commons; the land-tax, variable with improvements (an article ſufficient to ſtifle the thoughts of ſuch a thing); the export of corn at an end; the tranſport every where impeded; and your granaries burnt and plundered at the pleaſure of the populace, if they do not like the price; and, above all, the prohibition of the export of all materials of manufactures, as wool, &c. and it is ſufficiently clear, that America offers a vaſtly more eligible field for the inveſtment of capital in land than France does; a proof that the meaſures of the National Aſſembly have been ill-judged, ill adviſed, and unpolitical: I had ſerious thoughts of ſettling in that kingdom, in order to farm there; but the two meaſures adopted, of a variable land-tax, and a prohibition of the export of wool, damped my hopes, ardent as they were, that I might have breathed that fine climate, free from the extortions of a government, ſtupid in this reſpect as that of England. It is however plain enough that America is the only country that affords an adequate profit, and, in which a man who calculates with intelligence and preciſion can think of inveſting his capital. How different would this have been, had the National Aſſembly conducted themſelves on principles directly contrary; had they avoided all land-taxes *; had they preſerved the free corn-trade, a trade of import more than of export; had they been ſilent upon incloſures; and done nothing in relation to raw materials, the profit of inveſtments would have been higher in France than in America, or any country in the world, and immenſe capitals would have flowed into the kingdom from every part of Europe; ſcarcity and famine would not have been heard of, and the national wealth would have been equal to all the exigencies of the period.

CHAP. XXII.—*Vines.*

THE number of notes I took, in moſt of the provinces of the kingdom, relative to the culture of vineyards, was not inconſiderable; but the difficulty of reducing the infinite variety of French meaſures, of land and liquids, to a common ſtandard, added to an unavoidable uncertainty in the information itſelf, renders this the moſt perplexing inquiry that can be conceived. It was an object to aſcertain the value given to the ſoil by this culture; the amount of the annual produce; and the degree of profit attending it; inquiries not undeſerving the attention even of politicians, as the chief intereſts of a country depend, in ſome meaſure, on ſuch points being well underſtood. Now there is ſcarcely any product ſo variable as that of wine. Corn lands and meadow have their bad

* To have avoided land-taxes, might very eaſily have been made a moſt popular meaſure, in a kingdom ſo divided into little properties as France is. No tax is ſo heavy upon a ſmall proprietor; and the *œconomiſtes* might have foreſeen what has happened, that ſuch little democratic owners would not pay the tax; but taxes on conſumption, laid as in England, and not in the infamous methods of the old government of France, would have been paid by them in a light proportion, without knowing it; but the *œconomiſtes*, to be conſiſtent with their old pernicious doctrines, took every ſtep to make all except land taxes unpopular; and the people were ignorant enough to be deceived into the opinion, that it was better to pay a tax on the bread put into their children's mouths—and, what is worſe, on the land which ought, but does not produce that bread, than to pay an exciſe on tobacco and ſalt; better to pay a tax which is demanded equally, whether they have or have not the money to pay it, than a duty which, mingled with the price of a luxury, is paid in the eaſieſt mode, and at the moſt convenient moment. In the writings of the *œconomiſtes*, you hear of a free corn-trade, and free export of every thing, being the recompence for a land-tax; but ſee their actions in power—they impoſe the burthen, and forget the recompenſe!

and

and their good years, but they always yield ſomething, and the average produce is rarely far removed from that of any particular year. With vines the difference is enormous; this year they yield nothing; in another, perhaps caſks are wanted to contain the exuberant produce of the vintage; now the price is extravagantly high; and again ſo low, as to menace with poverty all who are concerned in it. Under ſuch variations, the ideas even of proprietors, who live by the culture, are not often correct, in relation to the medium of any circumſtance: nor is it always eaſy to bring individuals to regard rather the average of a diſtrict, than the particular one of their own fields. In many caſes, it is more ſatisfactory to rely on particular experience, when it appears tolerably exact, than to demand ideas, ſo often vague, of what is not immediately within the practice of the man who ſpeaks. Theſe difficulties have occurred ſo often, and in ſo many ſhapes, that the reader can hardly imagine the labour which it repeatedly coſt me to gain that approximation to accuracy, which I was fortunate enough ſometimes to attain. But, after all the inquiries I have made, with attention and induſtry, I do not preſume to inſert here an abſtract of my notes as intelligence that can be *entirely* relied on: I am ſatisfied, that it is impoſſible to procure ſuch, without application, time, and exertions, which are not at the command of many travellers. Contenting myſelf, therefore, with the probability of being free from groſs errors, and with the hope of giving ſome information on the ſubject, not to be found in other books, I venture to ſubmit the following extract to the public eye, though it be a reſult inadequate to the labour, variety, and expected ſucceſs of my inquiries. It is neceſſary farther to premiſe, that the reader muſt not contraſt the circumſtance of one place with thoſe of another, under the idea that a conſiderable difference is any proof of error in the account. The price of an arpent is ſometimes out of proportion to the produce; and the profit at other times unaccounted for by either:—this depends on demand, competition, the diviſion of properties, the higher or lower ratio of expence, and on various other circumſtances, which, to explain fully in each article, would be to enlarge this ſingle chapter into a volume; I touch on it here, merely to guard againſt concluſions, which are to be made with caution. The towns named in the following table, are the places where I procured intelligence.—None are inſerted in which I did not make the inquiry, as I was at every place mentioned in the margin.

The rents of vines are named but at few places; for they are very rarely in any other hands than thoſe of the proprietor; even where rent is named, there is not one acre in an hundred let.

The price of the product is every where that of the ſame autumn as the vintage: thoſe who can afford to keep their wine have much greater profits; but as that is a ſpecies of merchandize as much in the power of a dealer as a planter, it ought not to be the guide in ſuch accounts as theſe.

Isle of France.—*Arpajon.*—Rent of ſome to 80 livres; in common 25 livres. Expences in labour, excluſive of vintage, 60 livres (2l. 10s. 9d. per Engliſh acre.) Produce, 6 pieces, of 80 pints, each 1½ bottle.

Eſtampes.—Meaſure 80 perch, of 22 feet. Produce, 10 to 22 pieces. Rent to 90 livres. Labour, 60 livres, (2l. 13s. 9d. per Engliſh acre,) vintage excluded.

Orleans.—Price in the town, 150 livres the piece, of 240 bottles, and retail 6 to 10*ſ.* the pint, of 1¼ bottle. Rent 45 livres. Labour, 40 livres. vintage excluded (1l. 13s. 9d. per Engliſh acre.) Arpent of 40,000 feet.

S. of ditto.—Meaſure 100 perch, of 20 feet. Produce, 7 pieces, and in a good year 12. Rent, 36 livres. Labour, 40 livres. (1l. 13s. 10d. per Engliſh acre.)

SOLOGNE.—*Verſon.*—Rent in common, 35 to 50 livres, of the beſt 60 livres the ſétérée. Produce, ten to twelve pieces, and to twenty-two.——Account here.

Rent,	-	60 livres		Produce, 11 pieces, at 20 liv.	220 liv.
Tailles, about		12		Expences, - -	156
Vingtienne,		5			
Labour,	-	40		Profit, - -	64
Props,	-	6	10*ſ.*		
Vintage,	-	33			
		156	10	Price, 220 liv. (9l. 6s. 4d. per Engliſh acre).	

They renew ſome of the vines every year, by laying down ſhoots, called generally *provins*, but here *fauſſes*, five hundred per annum, at 50*ſ.* the hundred. They manure to the amount of thirteen ſmall cart loads, not reckoned in the above account. Twenty people neceſſary for gathering an arpent, at 12*ſ.* a day, and food. Vines are ſometimes much damaged by froſts in the ſpring.

BERRY.—*Vatan.*—No props; give four hoeings. *Fauſſe* 1 livre 15*ſ.* the hundred. Rarely let. Produce, three pieces per ſétérée, ſome ſix or eight; price now 24 livres. Rent, 60 livres. Produce, 168 livres (6l. 13s. 10d. per Engliſh acre.) To plant a ſétérée, for ſetting only, 45 livres to 48 livres; for two years produces nothing; the third a little. All agree it is the moſt profitable huſbandry, if one be not obliged to ſell in the vintage, for want of capital to keep the wine.

Chateauroux.—Very few let. Earth them four times. Produce, 3 poinçons, or pieces, a ſétérée. Rent, 60 livres.

Argenton.—Produce five or ſix pieces the ſétérée, each piece 160 bottles. Planted about two feet ſix inches ſquare. Uſe props of quartered oak.

QUECY.—*Brive.*—A journal one-fourth of a ſétérée, 0.4132 (*Paucton.*) In a good year produce two muids, of two hundred and forty-two pints of two bottles, but not general. Price, 3 to 6*ſ.* the pint. Labour, 15 livres, vintage excluded.

Pont de Rodez.—The plants at four feet ſquare; very old and large. Every where quite clean, and in fine order, worked four times. Price, 6 livres for ninety-ſix Paris pints. Cartona about half an acre.

Pellecoy.—Paſs vineyards, of which there are many ſo ſteep, that it is ſtrange, how men can ſtand at their work. One-third of the country under vines, which are planted on abſolute rocks, but calcareous.

Cahors.—Nineteen-twentieths under vines; in regular rows, at four feet; many more than two hundred years old. The true *vin de Cahors*, which has a great reputation, is the product of a range of rocky vineyards, that are upon hills hanging to the ſouth, and is called *grave* wine, becauſe of the ſtoney ſoil. Much ſubject to ſtorms of hail. Meaſure the ſétérée, not quite an arpent. Produce, four barriques, each two hundred and ten common bottles. Price, 50 livres; ſometimes at 20 or 30 livres; and if two or three plentiful years together, the price of the wine does not exceed the caſk; laſt year 12 livres; 50 livres the barrique, is 3 livres the dozen. Price, 800 livres, the meaſure (33l. 18s. 1d. per Engliſh acre); ſome at 150 livres (6l. 6s. 10d.); alſo at 300 liyres (12l. 13s. 8d.). Labour, excluſive of vintage, 30 livres (1l. 5s. 4d.) Their wines all bear the ſea well. The inhabitants and proprietors have little to do in the wine trade; dealers buy up for the merchants at Bourdeaux, who mix theſe wines with

with their own thin bodied ones, and ſell them for claret to the Engliſh, Dutch, &c. They make much brandy; five barriques make one of brandy. I drank this wine of three and ten years old; the latter 30*ſ.* the bottle, and both excellent. I imported a barrique, three years old, at 100 livres prime coſts and charges; and it coſt me into my cellar in Suffolk 15*l.* more, in freight, duty, carriage, and charges of all ſorts. Monſ. Andoury, aubergiſte at the *Trois Rois*, with whom I ſettled a correſpondence, might ſend me good wine; but not putting it into a double barrel, which he promiſed, it came to me much too weak; for the *vin de Cahors* is full bodied as port, but much better. A barrique I had alſo of another ſort of wine, from the Chev. de Cheyron, near Leyborne; and, for want of being caſed, it turned out ſuch poor ſtuff, that it is hardly good enough for vinegar. Without double caſing (and with it, for what I know) wines, *on a private account*, are tapped and filled up with water.

Ventillac.—See them, for the firſt time in going ſouth, ploughing between the rows of vines, at five feet and five and a half feet aſunder.

Noé.—Ox-hoeing the vines on a plain; each ox walks on an interval, with a row between them; and yoked with a ſliding yoke, to vary the diſtance from ox to ox. Many young plantations of vines.

ROUSILLON.—*Pia.*—Vineyards not reckoned profitable, on land that will do well for other products: a minatre (twelve hundred cannes, about forty thouſand feet), from five to ten charges, each one hundred and twenty-eight bottles, or pints of Paris. Good wine, of laſt vintage, 6 livres to 10 livres the charge; but old at 72 livres.

Sejean.—The charge contains ſixty pots, and weighs three hundred and ſixty pounds; five charges the muid, and the muid four tonneaux of Bourdeaux; price 10 livres, or 12 livres the charge; freight from Cette to Dunkirk, 50 livres 10*ſ.* the ton, and 20*ſ.* gratification; duty on export 7 livres.

Beziers.—Vineyards planted by Abbé Rozier, four feet four inches by three feet ten inches, but not regular; ſet in a deep foſſe, and covered with flints only.

Mezé.—New vineyards planted in all parts. A ſétérée, in a common year, gives two muids, or four tonneaux; five hundred and ſeventy-ſix pots to the muid, or ſeven hundred and ſixty-eight bottles, each a Paris pint. Four tonneaux of wine give one quintal of brandy, which ſells, at preſent, at 122 livres 12*ſ.* the quintal. Produce in money 96 livres (8*l.* per Engliſh acre), labour excluſive; vintage 15 livres (1*l.* 6*s.* per Engliſh acre). Examined a vineyard, planted one thouſand two hundred and fifty plants per ſétérée; they were four feet nine inches one way, by four feet ſix inches the other; each plant therefore occupied $21\frac{5}{144}$ feet ſquare: rejecting the fraction, there would be two thouſand and ſeventy three in an Engliſh acre; thus the ſétérée is ſomething better than half an acre. They are worked twice a year by hand; the expence 15 livres the ſétérée: the cuttings pay the expence of taking. Taille 30*ſ.* and making the wine 20*ſ.* the muid; common price of the wine 24 livres the tonneaux.

Pijan.—Produce $1\frac{1}{2}$ muid per ſétérée, at 50 livres ſix hundred and forty bottles, or 2*ſ.* the bottle. Within two leagues, Frontignan, ſo famous for its muſcat wines, a ſétérée of land has there yielded 300 livres, and half as much in a common year. Montbaſin is alſo noted for its muſcats, which ſells as dear as thoſe of Frontignan: three barriques make one muid, or ſix hundred and forty bottles: price in a common year, embarked at Cette, 300 livres: the red wine of Montbaſin, 100 livres the three barriques.

To Nimes.—Several thouſand acres of vines on a level plain.

Nimés.—For ſeveral leagues around, the vineyards yield from one muid to ſix per ſaumée; three, on an average; and the mean price 60 livres: meaſure, one thouſand ſeven hundred and fifteen cannes in a ſaumée, or ſixty-one thouſand ſeven hundred and forty feet.

Plaiſance.—An arpent of wheat, one year with another, yields more than an arpent of vines; but an arpent of vines ſell for near double one of arable.

Auch to Fleuran.—Many vines. Price, 500 livres (21l. 17s. 6d. per Engliſh acre).

Leitour.—Ditto on the ſtoney hills. Meaſure a ſack, that land ſown with a ſack of one hundred and forty five pound wheat. Price 400 livres (17l. 10s. per Engliſh acre).

La Morte.—Landron.—Vines on the hills. Meaſure the journal, and further ditto in the rich vale on the Garonne: props of willow. Price, 1000 livres (50l. per Engliſh acre).

Langon.—Yellow wine famous. Meaſure, arpent. Produce, five or ſix barriques. Price, 1000 livres the arpent (50l. per Engliſh acre). Produce, 300 livres (15l. per Engliſh acre).

Barſac.—Sell at 5*ſ.* or 6*ſ.* the pas of two feet ſix inches; ninety pas the auln; and price 100 livres. Four rows of vines, or four auln, make the breadth, and ninety pas long; are dreſſed four times a year, for 3 livres: forty-five rows a journal; but ſell the ſpace planted at one price, and the interval at another. The vines 20 livres to 22 livres the auln; the ſpaces between at 3 livres. Ninety by 2½, or one hundred and eighty feet multiplied by 2½, for the breadth four hundred and fifty, and by forty-five, the number of rows, gives twenty thouſand two hundred and fifty ſquare feet for a journal: forty-five rows, at 22 livres, are 990 livres; but forty-five by three, the price of the interval, 135 livres, average 562 livres, on the ſuppoſition of half vine, half intervals. Hills that hang to the Garonne, on the N. ſide, an immenſe range of vines.

Caſtres.—In a journal, the half only planted as above, will give, in a good year, four tonneaux, average 1½. Two years ago, 35 livres the tonneaux; this year, 60 livres to 70 livres: at 40 livres it is 90 livres per journal. Caſks from the N. of Europe, much inferior to French ones, becauſe the ſtaves are larger and thicker; price of them, 240 livres the dozen. Journal of Bourdeaux, to arpent de France, as 06218 to 1.

Bourdeaux to Cubſac.—This country, part *palus* and part high: produce, five to ſix barriques on the latter, and 2½ to three tonneaux on the other: 1200 livres (61l. 8s. 6d. per Engliſh acre) a common price; but ſome journals riſe to 3000 livres (153l. 11s. 3d. per Engliſh acre), and even to 4000 livres (191l. 19s. 3d.).

To Cavignac.—Produce wine five to ſix barriques the journal: make much brandy; five or ſix for one; two hundred and twenty bottles are ſold at 120 livres; their white wine for export is now at 150 livres the tonneaux. The fogs and rains this year, when the vines were in bloſſom, damaged them ſo much that the crop will be very poor; which they are not ſorry for, ſince another great vintage or two would have ruined them, by the low price which is the conſequence. They have a fabric of tartar.

ANGOUMOIS.—*To Petignac.—Roulet.*—The journal of two hundred laſt each, twelve feet ſquare, gives 1½ tonneaux; on good land, four to ſix barriques the journal of two hundred carreaux of twelve feet ſquare, twenty-eight thouſand eight hundred feet; an arpent 1½; on worſe land 1½ to three. A journal of wine not equal to the value of one of wheat: make much very fine brandy.

To

To Angoulême.—A journal, vines and arable land, of an equal price; 200 livres common (10l. per Engliſh acre); produce 40 livres (2l. per Engliſh acre). An immenſe range of vines: produce, three to four barriques; common price, 10 livres: make a great deal of good brandy, which ſells now at 150 livres the barrique, but has been at 60 livres; beſt vineyard 300 livres to 400 livres.

Verteuil.—Price 10 livres to 15 livres the barrique: proportion of brandy varies from four to nine of wine for one; in general ſix for one.

Caudec.—Give two, three, and four barriques per journal.

POITOU.—*Chateaurault* to *Les Ormes.*—Poor hills, with vines, ſell equally with their beſt vale lands. Meaſure the boiſſelée.

TOURAINE.—*Tours.*—Produce, five to thirty pieces per arpent; average ten; and mean price, 15 livres (150 livres is 4l. 0s. 3d. per Engliſh acre): meaſure one hundred chainé of twenty-five feet, 62,500 feet.

Amboiſe.—An arpent eight pieces, at 4 livres, 192 livres (5l. 12s. per Engliſh acre): meadows a better eſtate and ſell higher: the vines are 1500 livres (43l. 15s. per Engliſh acre).

Blois to Chambord.—Almoſt all the country vines, and many new plantations, on a blowing ſand; two thouſand acres under the eye at once. Arpent 1600 toiſes: produce twelve poinçons, and, in good years, to thirty ſix, each two hundred and forty bottles; moſtly made into brandy: in one village, laſt winter, they made three thouſand poinçons: in ſome years three of wine make one: an arpent requires ſeven thouſand two hundred props, which laſt about eight years; the price 18 livres to 20 livres the thouſand.

Chambord.—Same meaſure: average produce twelve pieces.

To Petiviers.—Produce, twelve pieces on good land, at 36 livres now; but average ten, at 24 livres, or 240 livres (8l. 1s. per Engliſh acre). Meaſure, one hundred perch at twenty-two feet: price 1000 livres (35l. per Engliſh acre).

Petiviers.—Price of an arpent 700 livres (24l. 10s. per Engliſh acre): produce, four to twenty pieces; average ten: price now 50 livres; but average 24 livres, or 240 livres (8l. 8s. per Engliſh acre): labour, excluſive of vintage, 30 livres.

ISLE OF FRANCE.—*La Chapelle la Reine.*—Produce, ten pieces, at 20 livres, 200 livres (7l. per Engliſh acre): labour, excluſive of vintage, 30 livres: meaſure, one hundred perches, twenty-two feet: price 600 livres (21l. per Engliſh acre).

Liancourt.—A bad arpent 300 livres; a good 600 livres (450 livres is 15l. 13s. 3d. per Engliſh acre): the meaſure one hundred perches, at twenty-two feet. Produce, three muids, at 60 livres, 180 livres (6l. 6s. per Engliſh acre) the muid, of three hundred and ſixty Paris bottles; yet bad, and not drank by gentlemen. Props laſt five or ſix years, 10 livres the thouſand; to keep an arpent in order, two thouſand every year.

BRETAGNE.—*Auvergnac.*—A ſcattering of them from Guerande hither, and no where elſe N. except a few on the coaſt at Piriac and St. Gildas. Meaſure the journal of 1280 toiſes. Price, 800 liv. (29l. 3s. 10d. per Engliſh acre). Produce, 6 to 8 barriques, each 240 pints of Paris. Common price 15 liv. to 20 liv. This for a good year. They reckon that if they have no crop they loſe 60 liv. per journal.

Nantes to Ancenis.—Produce, ſix barriques, now 25 liv. All promiſcuous and no props.

Ancenis.—Boiſelée, the fifth of an arpent de Paris; ſells, per arpent, at 750 liv. Produce in a common year, 1½ barrique, or 7½ per arpent: and common price 22 liv. 165 liv. (8l. 8s. 10d. per Engliſh acre): ſometimes let, at three-fourths and one-half produce, to metayers. Labour, 6. liv. the boiſelée, and 6 liv. the vintage; in all, 60 liv.

60 liv. the arpent. Great region of vine along the river; they extend not far from it: dung very little; many not once in fifteen years.

Varades.——Meadows fell at double the price of vineyards, yet theſe 600 liv. (30l. 14s. 3d. per Engliſh acre).

ANJOU.—*St. George.*—Boiſelée, ¼ of an arpent, or 10,000 feet. An arpent, 40,000 feet, of the worſt vines ſells at 200 liv.; beſt 500 liv. (350 liv. is 14l. 9s. 7d. per Engliſh acre). Produce, 1½ to 5 barriques.

Angers.—On the Loire, vineyards are various; ſome produce very little of the beſt wine; and others, by manuring, much of an inferior quality. Four barriques of good wine, on an arpent of 100 cords of 25 feet, or 62,500, is a common produce, but not a medium. The price, in a plentiful year, 35 liv.; and in one of ſcarcity, 50 liv. the barrique: this year it is 25 liv. but the wine bad, the grapes not being ripe. Four barriques, at 40 liv. make 160 liv. Expences—labour in digging, 24 liv.; vintage, 3 liv. the barrique, or 12 liv. the arpent; caſks, at 5 liv. 20 liv.; tythe $\frac{1}{13}$th; beſides taxes. The aſſertion general, that vines are the worſt of all eſtates. Why? Becauſe, for one year in five or ſix, they yield nothing; and ſometimes little for two or three years together. But admitted, at the ſame time, that if a man has money to enable him to keep his wine, two good years pay more than the fee ſimple. An arpent of the beſt vines on the Loire ſells from 3000 to 4000 liv. Now, to gain from hence ſome facts by combination, call this 3500 liv. and that it pays only 5 per cent.—it is 175 liv.; labour 36 liv.; caſks 25 liv.; and here is 236 liv. without a penny for the king, or any *profit* to the proprietor: at 5 barriques, this makes 47 liv. each; a ſure proof, either that the produce muſt be more than 5 barriques,—or that the price muſt be more than 47 liv.; probably 9, at 40 liv. (360 liv. is 9l. 14s. 4d. per Engliſh acre) for a mean arpent, at 1750 liv. (47l. 5s. 3d. per Engliſh acre).

Duretel.—Vines ſells higher than arable, and meadow higher than vines.

La Roche Guyon.—Vines the worſt eſtate in the hands of poor proprietors only.—Account of an arpent of Paris. Price 1200 liv. (6l. 0s. 4d. per Engliſh acre.)

	liv.		liv.
Rent; the intereſt of the price, at 4 per cent.	48	Produce, 6 muids, at 50 liv. - -	300
Labour, Vintage, 68 liv. (3l. 9s. 2d. Engliſh acre)	60	(15l. 7s. 1d. Engliſh acre.)	
	8	Expences, - - - -	227
Manure, - - - -	40		
Six caſks, - - - -	36	Profit, - - -	73
Props, - - - -	30		
Taille, - - - -	5	The muid 240 pints de Paris.	
	227		

An extraordinary good year is 10 muids; a middling one ſix; and a bad one three. As to no produce at all, or ſo little as one, no ſuch thing is known, not even in forty years. But query, hail?

In 1785, the crop was	12 muids, at	27 liv.	324 liv.
1786,	5	70	350
1787,	3	90	270
1788,	4½	75	337

The labour conſiſts in carrying of dung, pruning, trimming, four diggings, ſtaking, tying, budding, &c.

How this huſbandry can be eſteemed unprofitable, as it is generally in France, ſurpaſſes my comprehenſion; in the hands of a man without a ſufficient capital, it certainly is ſo; but thus alſo is that of wheat and barley.

Neuf Moutier.—In one of the richeſt diſtricts in France, vines on the ſlopes ſell at 200 liv. to 2500 liv. (2200 liv: is 78l. 13s. 3d. per Engliſh acre) the arpent of 100 perches of 22 feet; where the rich vales let at 40 liv. to 60 liv.; and land of 40 liv. ſells not higher than 1500 liv. or 1800 liv.

CHAMPAGNE. *Epernay, &c.*—Two thirds of all the country around, about Ay, Cumiere, Piery, Diſy, Hautvilliers, &c. &c. under vines; and here all the famous Champagne wines are made. The country producing the fine white wine is all contained in the ſpace of five leagues: and three or four more include Aviſe, Aungé, Lumenée, Crammont, &c. where they make the white wine, with white grapes only. At Ay, Piery, and Epernay, the white wine is all made with black grapes. La Montagne de Rheims, Bouzé, Verſeé, Verznée, Teaſe, Airy, and Cumiere, for the *bon rouge de la* Marne. At Airy the firſt quality of the white alſo made. With the black grape they make either red or white wine, but with the white only white wine.

The price of land is very high; at Piery 2000 liv.; at Ay 3000 liv. to 6000 liv.; at Hautvilliers 4000 liv. The worſt in the country ſells at 800 liv. (3000 liv. is 105l. 9s. per Engliſh acre; 6000 liv. is 211. 18s.)

The produce, as may be ſuppoſed, varies much; at Ay, two to ſix pieces, and four the average; At Reuil and Vanteuil, to twenty pieces; at Hautvilliers, a convent of Benedictines, near Epernay, eighty arpents that yield two to four; and the price varies equally: at Ay, the average is two, at 200 liv.; one at 150 liv.; and one at 250 liv. By another account, 200 liv. to 800 liv. the queue, of two pieces; average 400 liv. the queue. At Reuil and Vanteuil it is 60 liv. to 100 liv. The vines of Villiers 700 liv. to 900 liv. the queue. Red wine is 150 liv. to 300 liv.—Account of a conſiderable vineyard, an average one, given me at Epernay:

	For an Arpent.	*Per Engliſh Acre.*
Intereſt of purchaſe, 3000 liv.	150 liv.	£6 11 3
Labour,	55	2 8 1½
Renewal (*provins*) ditto,	24	1 1 0
Tying,	8	0 7 0
Props,	30	1 6 3
Manure, 1 part dung to 14 earth,	20	0 17 6
Vintage, 12 liv. a piece,	48	2 2 0
Caſks,	15	0 13 1½
Taxes——taille, vingtieme, and capitation,	9	0 7 10½
Aides, 15 the queue,	30	1 6 3
Cellar, vaults, preſs, reſervoirs, tubs, &c. and building to hold them, 8000 liv. for 20 arpents, or 400 liv. per arpent, the intereſt,	20	0 17 6
	409	17 17 10½
Product.—Two pieces, at 200 liv.	400	17 10 0
One ditto,	150	0 11 3
One ditto,	50	2 3 9
	600	26 5 0
Expences,	409	17 17 10½
Profit,	191	8 7 1½

Which,

Which, with the intereſt charged, makes 10 per cent. on 3000 liv. land, and 400 liv. buildings; the general computation, and which ſeems admitted in the country. Sixty women are neceſſary to gather the grapes for four pieces, by reaſon of the attention paid in the choice of the bunches; a circumſtance to which much of the fine flavour of the wine is owing, as well as to ſingularity of ſoil and climate; the former of which is all ſtrongly calcareous, even to being white with the chalk in it. A fine lengthened ſlope of a chalk hill, hanging to the ſouth, between Diſy and Ay, which I examined, is entirely covered with vines, from top to bottom, and is the moſt celebrated in the province. It is indeed rather a marl than a chalk; in ſome places white, in others much browner, and may properly be called a calcareous loam on a chalk bottom. This marl is in ſome places very deep, and in others ſhallow. I was ſhewn pieces worth 6000 liv. the arpent, and others worth 3000 liv. but the difference of ſoil was not perceptible; nor do I credit that this difference depends on ſoil: none of it approaching to pure chalk. It is impoſſible to diſcover, in the preſent ſtate of knowledge and information, on what depends the extraordinary quality of the wine. The people here aſſert, that in a piece of not more than three arpents, in which the ſoil is, to all appearance, abſolutely ſimilar, the middle arpent only ſhall yield the beſt wine, and the other two that of an inferior quality: in all ſuch caſes, where there is ſomething not eaſily accounted for, the popular love of the marvellous always adds exaggeration, which is probably the caſe here. Attention in gathering and picking the grapes, and freeing every bunch from each grape that is the leaſt unſound, muſt tend greatly to inſure wine of the firſt quality, when the difference of ſoil is not ſtriking.

The vines are planted promiſcuouſly, three or four feet, or two and a half from each other: are now about eighteen inches or two feet high, and are tied to the props with ſmall ſtraw bands. Many plantations are far from being clean, ſome full of weeds; but a great number of hands ſpread all over the hill, farcling with their crooked hoe.

As to the culture, in the middle of January, they give the cutting *taillé*: in March dig the ground: in April and May they plant the provins: in June tie and hoe the ſeps: in Auguſt hoe again: in October, or in good years in September, the vintage.

To plant an arpent of vines, coſts in all 50 louis d'or: there are eight thouſand plants on an acre: and twenty-four thouſand ſeps and the props coſt 500 livres: to keep up the ſtock of props 30 livres a years. It is three years before they bear any thing, and ſix before the wine is good. None are planted now, on the contrary, they grub up.

Very few perſons have more than twenty or thirty arpents, except the Marquis de Sillery, near Rheims, who has two hundred and fifty arpents. At Piery there are twenty arpents now to be ſold; a new houſe, a good cellar, magazine, a good preſs, and every thing complete, for 60,000 livres: the vines a little, but not much, neglected. For this ſum I could buy a noble farm in the Bourbonnois, and make more in ſeven years than by vines in twenty.

Thoſe who have not a preſs of their own, are ſubject to hazards, which muſt neceſſarily turn the ſcale very contrary to the intereſts of the ſmall proprietor. They pay 3 livres for the two firſt pieces, and 25*ſ.* for all the reſt: but, as they muſt wait the owner's convenience, their wine ſometimes is ſo damaged, that what would have been white becomes red. Steeping before preſſing makes red wine.

As to preſſing, to do it very quickly and powerfully, is much the better way; and they prefer turning the wheel of the preſs by ſix, ſeven, or eight men, rather than by a horſe.

In

In regard to the aides, or tax, on the transfer of wine, the proprietor who ſells a piece worth 200 liv. pays — — — 10 liv.

Ten ſols per livre, — —	5
Augmentation; *gauge*, conſtage, &c. —	5
Octroi de la Ville and du Roi, —	5
	25

The merchant, when he ſells it, pays the ſame; and every perſon through whoſe hands it paſſes. The duty at the port, on exportation, is about 15 livres each piece. The cabaret or and aubergiſte pays 30 or 40 livres more retail duty. The wine trade with England uſed to be directly from Epernay; but now the wine is ſent to Calais, Bologne, Montreuil, and Guernſey, in order to be paſſed into England, they ſuppoſe here by ſmuggling. This may explain our Champagne not being ſo good as formerly. Should the good genius of THE PLOUGH ever permit me to be an importer of Champagne, I would deſire Monſ. Quatreſoux Paretclaine, merchant at Epernay, to ſend me ſome of what I drank in his fine cellars. But what a pretty ſuppoſition, that a farmer, in England, ſhould preſume to drink Champagne, even in idea! The world muſt be turned topſy-turvy before a bottle of it can ever be on my table. Go to the monopolizers and exporters of woollens — go to — and to — and every where — except to a friend of the plough!

The eccleſiaſtical tithe is a heavy burthen. At Hautvilliers the eleventh is taken for a dixme; at Piery the twentieth, or in money 4 livres 10*ſ.*; at Ay, 48*ſ.*; and at Epernay 30*ſ.*; at Diſy $\frac{1}{27}$; but with all this weight of tax, nothing is known or ever heard of like the enormities practiſed in England, of taking the actual tenth.

The idea of the poverty attending the vines is here as ſtrong as in any other part of France: the little and poor proprietors are all in miſery. The fact is obvious, that a hazardous and uncertain culture is ridiculous for a man with a weak capital. How could a Kentiſh labourer be a hop-planter? But no diſcrimination is found commonly in France—the aſſertion is general, that the vine provinces are the pooreſt; but an aſſertion without explanation is utterly ridiculous. To render vines profitable, it is a common obſervation here, that a man ought to have one-third of his property in rents, one-third in farm, and one third in vines.

It is eaſy to conceive, that the moſt ſucceſsful cultivators are thoſe who have the largeſt capitals. It is thus that we hear of the exertions of merchants; men who not only have many arpents of their own vines, but buy the wine of all their little neighbours. Monſ. Laſnier, at Ay, has from fifty to ſixty thouſand bottles of wine always in his cellar; and M. Dorſé from thirty to forty thouſand.

Rheims.—Average price of an arpent 2400 livres (84l. per Engliſh acre.)

Account.

	liv.		liv.
Intereſt, — — —	120	Produce, 3 pieces,	
Culture by contract, — —	40	at 410 livres,	420
Manured every fifth year, 60 livres; and 1000 men or women's loads of earth to mix, 36 livres, —	96	(14l. 14s. per Engliſh acre.)	
Props, 20 bundles, — —	12		
Carry forward, — —	268	Carry forward,	420

	liv.		liv.
Brought forward, — —	268	Brought forward,	420
Extra hoeing, — — —	6		
Taxes, — — — —	8		
Caſks, — — —	18		
Vintage, at 20*ſ.* a day, — —	18		
Preſs, four men, at 20*ſ.* and 20*ſ.* food, —	8		
Intereſt of buildings, cellar, magazine, preſs, and utenſils,	30		
The cellar-man, 200 livres for 20 arpents, per arpent,	10		
	366	Loſs,	
Labour, 64 livres, (2l. 4s. 7d. per Engliſh acre): intereſt of which for firſt year, — —	18		
	384		
Droit d'aides, 7½ per cent. on value, three pieces groſs, beſides conſtage, &c. &c. — —	40		
	424		424

But inſtead of loſs, every one I talked with, and the gentleman himſelf who gave me this account, Monſ. Cadot L'Ainé, who has a conſiderable vineyard, aſſured me, that they pay, on an average of ten years, 7½ per cent. on the capital; this will make a difference of 75 livres, which, with the 24 livres loſs in this account, is 99 livres, which muſt be partly deducted from theſe expences, and partly added to the produce. On an average, the manuring is I ſuſpect eſtimated too high. The vines this year promiſe to yield not a piece per arpent; not by reaſon of froſts laſt winter, but of the cold being ſo late as laſt week (in July).

The little proprietors here alſo are generally very poor, and many are ruined by not being able to wait for a price. The wine trade at Rheims amounts to four or five millions per annum (175,000l. to 218,700l.)

Sillery.—The Marquis has a hundred and ſixty arpents under vines, and not two hundred and fifty, as I had been informed; he has cellar room for two hundred pieces; this was mentioned as an extraordinary circumſtance, but it ſhews that he is very deficient in a power of keeping his wines: a hundred and ſixty arpents, at three each, are four hundred and eighty pieces; ſo that his cellar, inſtead of containing the crop of three years, will not hold half the crop of one year. It is evidently a buſineſs that ought to have a large capital, and even an apparently ſuperfluous one, or all the profit goes to the merchant.

LORAINE.—*Braban.*—Price 175 livres (25l. 1cs. 1d. per Engliſh acre). Meaſure, 80 perches, at 11½ feet.

Verdun.—Meaſure, 480 verges, of 8 feet 2 inches, equal 66 perches of Paris: higheſt ſell to 2400 livres; not uncommon 1100 livres (84l. per Engliſh acre).

Metz.—Meaſure, journal, equal to 69½ perches of Paris. Price 1200 livres (89l. 14s. per Engliſh acre).

Account.

Account.

	liv.		liv.
Culture, 6 livres per monée, 8 monées in the journal,	48	Produce, 40 hottes, each 44 pints of Paris, at 6½ liv. (20l. 9s. 6d. per Engliſh acre.	260
Props, 20*ſ.* the monée,	8		
Two loads of dung, at 3 livres,	6		
Repairs of caſks,	6		
Taxes, taille, and capitation,	13		
Ditto vingtieme,	4	Expences,	110
Preſſing, one-thirtieth of the crop,	9		
Vintage,	16	Profit,	150
	110		

Labour, 64 livres (5l. 6s. 7d. per Engliſh acre).

But intereſt of 1200 livres is 60 livres, and the tithe here is from the twentieth to the thirtieth to be deducted. The general aſſertion, which ſeemed to admit no doubt, was that the profit is 7 per cent.

Pont au Mouſſon.—Meaſure a journal, 10 hommées, or 250 verges of 10 feet, the foot of 10 inches.

Account.

	liv.		liv.
Labour,	30	Produce, 400 hotes on 13 arpents, 30 per journal, (14l. 11s. 3d. per Engliſh acre).	180
Manuring, 64 livres, but once in eight years,	8		
Vintage twenty-five perſons for 13 journals, at 12*ſ.* ſed,	3		
Preſs,	2		
Caſks,	16		
Taxes, no droit d'aides,	3	Expences,	121
Props,	4		
Arpent, 800 livres, (66l. 2s. 1d. per Engliſh acre),		Profit,	59
Buildings, 60			
	45		
860			
Intereſt of ditto,			
Droit de gabelle, and gauge, 13*ſ.* per hotte,	10		
	121		

Labour, 33 livres, (2l. 9s. 10d. per Engliſh acre.)

But ſome little error here, for the common calculation is, that they pay 10 per cent.

Vines are planted more and more, the culture augmenting every day; they plant the land proper for wheat as readily as any other.

Nancy.—Meaſure, 19,360 feet. Price of the beſt, 1000 livres; the worſt, 500 livres (at 750 livres, 65l. 12s. 6d. per Engliſh acre). They have what they call the *groſs race* and the *petit race* of vines; the firſt gives much in quantity, but of a bad quality: the latter wine of a good quality, but in quantity ſmall.

The medium produce is twenty meaſures per journal, of eighteen pots of two pints of Paris, of the groſs race, and ten of the petite. The mean price of the firſt 5 livres; of the latter 10 livres (at 100 livres it is 8l. 15s. per Engliſh acre).

Luneville.—The journal 15,620 feet. Produce, 40 meaſures of the groſs race, of all ſorts; average, twelve meaſures, 6 livres 15*ſ.* Price per journal, 550 livres (56l. 17s. 6d. per Engliſh acre). Produce 80 livres (8l. 12s. per Engliſh acre).

ALSACE.—*Wiltenheim.*—Meaſure, 100 verges, at 22 feet. Price, 900 livres (31l. 10s. per Engliſh acre).

Straſbourg.—Meaſure, 24,000 feet. Price, 800 livres (55l. 7s. 9d. per Engliſh acre). Produce, thirty meaſures, of twenty-four pints of Paris. Good price, 6 livres the meaſure; middling, 4 livres 10*ſ.*; low, 3 livres (at 150 livres produce, it is 10l. 7s. 4d. per Engliſh acre).

Schelſtadt.—Produce, forty meaſures. Price, 6 livres the meaſure, 240 livres (16l. 12s. 6d. per Engliſh acre).

Iſenheim.—Some ſo high as 3000 livres, but few that yield a hundred meaſures, at 6 livres, but by no means common.

FRANCHE COMPTE'.—*Beaume*—Meaſure, an œuvre. Produce, a muid, at 40 livres to 60 livres.

Beſançon.—Meaſure, a journal, of eight œuvres; the œuvre 45 perches, of 9½ feet. Price, 40 livres to 400 livres the œuvre. Produce, a quarter of a muid to one muid, or eight per journal. The grape, called the *gammé*, yields the moſt wine, but of the worſt quality. Common price, 60 livres the muid.——Account of a journal, 32,400 feet.

	Liv.		Liv.
Intereſt of 2400 livres (123l. 6s. Engliſh acre), at 5 per cent.	120	Produce, 4 muids, at 60 livres (12l. 6s. per Engliſh acre),	240
Culture, 5 livres the œuvre,	40	Expences,	214
Props, 1 livre ditto,	8		
Vintage, 5 livres ditto,	40	Profit	26
Tonneaux, 12 livres the muid new; but reparation a trifle,	0		
Taille, capitation, and vingtieme 8*ſ.*	3 4*ſ.*		
No droit d'aide.			
Never dung, thinking it ſpoils the wine.			
Fauſſe, renovation 3 livres per 100,	3		
Tythe, none in common; but, where found, only from one-twelfth to one-twentieth.			
	214		

Labour, 83 livres (4l. 4s. per Engliſh acre).

The common idea is, that the produce of an œuvre is	30 livres.
And the expence	12
	18
Or profit per journal	144
Intereſt	120
Remains net	24

They are alſo generally ſuppoſed to yield but five per cent. profit on capital, and ſometimes not ſo much.

The

The vines here are in double rows, at about two feet, and the props placed in an inclining poſition, ſo as to join over the centre of that ſpace, and are there tied to an horizontal prop; by which means any ſmall ſticks anſwer the purpoſe of props.

BOURGOGNE.—*Dijon.*—Meaſure, journal of 900 toiſes. Price of common vineyards, 1000 livres to 1500 livres (at 1250 livres, it is 63l. 19s. 2d. per Engliſh acre) the beſt about Dijon. Produce, about ſeven or eight pieces, or muids, at 36 livres (at 270 livres it is 13l. 16s. 6d. per Engliſh acre): pay ſix per cent. But the fine vineyards of Veaune, Romané, Taſh, &c. ſell at 3000 livres.

Clos de Veaujeau.—This is the moſt famous of all the vineyards of Burgundy, the wine ſelling at the higheſt price; it contains above an hundred journals, walled in, and belongs to a convent of Bernardine monks. This reminds me of Hautvilliers, near Epernay, one of the fineſt vineyards in Champagne, having reverend maſters alſo. There are no trees in that at Clos de Veaujeau, though in all the more common ones. The vines are now not more than two or three feet high, the props being ſhort alſo; they are not in rows, but planted promiſcuouſly. The ſoil a brown loam, inclining to reddiſh, with ſtones in it, which on trial prove calcareous. It is not, like the fine vineyards of Champagne, on a declivity, but flat, at the foot of a hill, which is rocky. The produce, 1¾ muid, at 600 livres the muid, 000 livres (46l. 1s. 4d. per Engliſh acre). The vineyard would, it is ſaid, ſell for 10,000 livres the journal (511l. 17s. 6d. per Engliſh acre). They make white wine alſo, of a quality and price equal to the red.

Nuys.—The fineſt vineyards ſell up to 7000 livres and 8000 livres a journal; but in common about 1000 livres (51l. 3s. 9d. per Engliſh acre). The produce of the fine wines never great; four pieces, or muids, of half a queue, or two hundred and forty bottles, is a great product; 1¾ middling: and in bad years, none at all, which happens ſometimes, as at preſent, after a very fine appearance: but the froſts at the end of May cut them off ſo entirely, that there is not a grape to be ſeen. Such wine as the poor people drink, ſells commonly at 60 livres or 70 livres the queue, now 120 livres.

——Account of a journal.

	Liv.		Liv.
Intereſt, - - - -	50	Produce, 1¾ piece, at 100 liv. (8l. 19s. 4d. per Engliſh acre),	175
Culture, by contract (ſome at 60 livres),	72		
Props, called here, not *echalets*, but *paiſeaux*,	6		
Caſks repaired, - - -	6	Expences, -	148
Taxes, - - - -	8		
Vintage, - - - -	6	Profit, -	27
	148		

One vigneron, with his wife and four children, muſt all work very well to do four journals; for which, if at 60 livres, they receive 240 livres, but have the winter for other work. The vineyards which bear the greateſt reputation here, after the Clos de Veaujeau, are thoſe of St. George, Romané, La Taſhe, de Veaume, Richebourg, Chambertin, and Côte roté. The beſt is 25l. the piece, or 3 livres the bottle; but this is the price of the vintage; kept three or four years, it ſells for 4 livres, and even 5 livres the bottle in the country.

In 1782 the crop was ſo great, that they gave 12 livres for very miſerable caſks, and ſold them full at 20 livres, but the wine not good. 1785 was the laſt great crop,

when the price of a caſk, a tonneaux, which commonly is 12 livres new, was 36 livres to 40 livres, but the wine bad: they never dung for fine wines, only for bad ones, but they manure ſometimes with earth. New vineyards give a larger quantity of wine than old ones, but the wine of the latter the beſt quality. There are here, as in all the other wine provinces, many ſmall proprietors, who have but patches of vines, and always ſell their grapes; but there is no idea of their being poorer than if they did not purſue this culture.

Beaume.—The ſtones in the vineyards here calcareous. An œuvre coſts 400 livres, 3200 livres per journal (163l. 16s. per Engliſh acre). Produce, two or three pieces, at 15 livres this common wine; but there are fine ones vaſtly higher. The wines of greateſt name here, after the *Clos de Veaujeau*, are Volny, Pomar, Aloes, Beaume, Savigné, Mulſo (white), and Maureauché, which laſt ſells, ready to drink, at 4 livres the bottle; new at 1200 livres the queue. They give here great accounts of the profit attending this culture; but on being analyzed, they are found all to turn on the ſuppoſition of having good cellars, and keeping for a price, which is mere merchandize, and not cultivation; for the merchant who buys at the vintage to fill his cellars, is exactly in the ſame predicament; and to enjoy this profit, it is not neceſſary to cultivate a ſingle acre.

Chagnie.—Price of an œuvre 100 livres; eight of them to a journal, 800 livres (40l. 19s. per Engliſh acre). Common produce, one piece per œuvre: the price now 60 livres the piece, but 20 livres more common (160 livres is 8l. 3s. 7d. per Engliſh acre.

Couch.—An œuvre, the eight of a journal, ſells at 100 livres; but there is more at 80 livres. Produce, one piece, at 36 livres common price, but now 60 livres: uſually one piece at 25 livres; half the produce, by contract, for labour (at the price of 640 livres, it is 32l. 15s. 4d. per Engliſh acre).

BOURBONNOIS.—*Moulins.*—Sell to 1000 livres the arpent (34l. 12s. 1d. per Engliſh acre) of eight boiſelées, each 168 toiſes, 48,384 feet. In a good year, produce eight poinçons, at 30 livres; common year five or ſix, at 30 livres for common vineyard: half the produce is paid by contract, for labour. Very rarely dung: props 7 livres: tythe the eleventh.

Riaux.—Common produce, half a piece per œuvre, or boiſelée; one-fourth for proprietor, and one-fourth for labour.

St. Ponerin.—Vineyards on hills, 100 livres the boiſelée; 800 livres the arpent (27l. 13s. 10d. per Engliſh acre).

AUVERGNE.—*Riom.*—Sell at 200 livres the œuvre; ſometimes 1*ſ.* the bottle, or 15*ſ.* the pot; now 3 livres; middling price 20*ſ.* to 30*ſ.*

Clermont.—Meaſure, 800 toiſes; beſt 300 livres; worſt 100 livres; middling 150 livres an œuvre; 1200 livres the arpent (70l. per Engliſh acre); medium ten pots, each ſixteen pints of Paris; on the beſt land fifteen, and the mean price 30*ſ.*; at preſent 3 livres; tie them with willow branches, *ſalix viminea.*

Izoire.—In common ſell at 500 livres or 600 livres the ſétéré, but in good ſituations 800 livres (46l. 12s. 9d. per Engliſh acre): the œuvre of the beſt yields two ſommes; middling one and a half; bad, one: the ſomme ſix pots, each ſixteen pints of Paris; the common price after the vintage, 25*ſ.* to 30*ſ.* the ſix pots (at 168 livres it is 9l. 16s. per Engliſh acre).

Account

Account of an Œuvre.

	Liv.	Sols.		Liv.
Labour,	8	0	Produce, 1¾ ſomme, at 30*ſ.* the pot, 12 livres the ſous,	21
Props,	2	10		
Intereſt buildings, 100 livres, 50 œuvres,		28	Expences,	18 19
Intereſt of 100 livres purchaſe,	5	0		
Taille, &c.	0	11	Profit,	2 1
Provins,	0	8		
Dung ditto,	0	2		
	18	19		

By which we are only to underſtand that they pay little more than common intereſt.

Briude.—Price, 10 livres to 100 livres (55 livres, is 25l. 12s. 9d. per Engliſh acre); the worſt are on rocks, where a ſtorm drives ſoil and crop away. It is very remarkable that the rocky declivities, which are ſo natural to the vine, here yield a wine far inferior to the rich plains of the Limagne. This deſerves remark, and a further attention from the naturaliſts, who examine this very curious and intereſting country. They have thirty-five ſorts of vines here; the *Lange dit de chien* is the firſt.

DAUPHINE.—*Montelimart.*—Price of a ſeteré, half an arpent of Paris, 168 livres to 480 livres, and produces ſeven meaſures of wine, called charges, each of a hundred bottles, the common price 15 livres, or 75 livres per ſeteré.

Account.

			Liv.		Liv.
Intereſt of 300 livres (44l. 12s. 6d. per Engliſh acre) mean price,			15	Produce, (7l. 17s. 6d. per Engliſh acre,)	75
Culture,	1ſt,	20 liv.		Expences,	58
	2d,	10	30		
	3d, paid by cuttings,	0		Profit,	17
No props.					
Vintage,			6		
Caſks,			3		
Taxes,			2		
No droit d'aides.					
Cellar, &c. &c.			2		
			58		

PROVENCE.—*Avignon.*—Price 70 livres the eymena, and produce three barrels: price at preſent 6 livres the barrel, or 3*ſ.* the bottle; common price 2*ſ.* The beſt vines give eight per cent. on capital.

Aix.—The carterée 800 livres (63l. per Engliſh acre). Meaſure, ſix hundred cannes for the carterée; the canne of eight pans, the pan of nine inches and three lines.

Tour d'Aigues.—The produce of a ſomma is a hundred coup, each 60 lb. 3 lb. a pot; and the common bottle 2¼ lb.: 100lb. of grapes give 60lb. of wine. Mean price 30ſ. the coup, or per ſomma 150 livres. Meaſure, 50,400 feet.

Account.

	liv.	ſols.		liv.	ſols.
Culture,	48	0	Produce,		
Hoeing and pruning,	12	0	(4l. 19s. 6d.		
Vintage and carriage,	10	0	per Engliſh		
Intereſt of buildings, &c.	15	0	acre,)	150	0
Taille, by the cadaſtre (but this varies every year by			Expences,	126	0
reaſon of provincial expence,)	10	0			
Seigneural duty,	1	0	12 Profit,	24	
Price, 600 livres, (20l. 2s. 6d. per Engliſh acre,) in-					
tereſt,	30	0			
	126	0			

Hyeres.—Uſually planted in double rows, at three or four feet, with intervals of different diſtances, ploughed, or hoed, for corn; and this method they call *mayoivere*. Two hundred and eighty plants produce one bout of wine, of ſix barrels, each barrel twenty-eight pots, and each pot 3lb. Common price per bout 50 livres.

Obſervations.

It is merely for curioſity I obſerve, that the average of all the prices per meaſure, in the purchaſe of theſe vineyards, amounts to 61l. 8s. per acre; ſuch a medium demands very little attention, unleſs the minutes were exceeding numerous, and equally ſo in every province. Rejecting thoſe in which the prices exceed 100l. an acre, as going certainly much beyond what can poſſibly be the medium of the kingdom, the average of the reſt is 41l. 1s. 6d. per acre. But I ſhould wiſh that attention were rather given to another mode of calculating the price and produce of theſe vineyards; there are twenty three minutes that include both price and produce; the average of theſe, excluſive of ſuch as riſe above 100l. purchaſe, and 21l. produce, is

For the price per Engliſh acre,	£45	1	0
For the produce,	9	2	0*
Which is in French money, per arpent of Paris,—Price,	871 liv.		
Produce,	175		

From which it appears, that vines, in theſe provinces, give, in annual produce, one-fifth of their fee ſimple.

The amount of labour per acre, on an average of thoſe minutes, in which it appears to be ſatisfactorily noted, and rejecting the higher articles as before, is 2l. 12s. 6d.

* The Marquis de Mirabeau obſerved, that an arpent of vine is, on an average, worth double the beſt arpent of corn. *L'Ami des Hommes*, 5th edit. 1760. tom. vi. p. 137. This agrees pretty well with my notes.

The

The net profit appears, from ſeveral of the minutes, to vibrate between 7 and 10 per cent. on the capital employed.

How nearly theſe averages, noticed in my route, approach the real medium of the whole kingdom, it is impoſſible, with any degree of accuracy, to conjecture; but I am inclined to believe, that the difference may not be conſiderable. This, however, muſt be left, with a proper diffidence, to the well informed reader's ſuperior ſagacity.

The importance of this branch of cultivation to the kingdom, and the idea ſo common there, I may almoſt ſay univerſal, that the wine provinces are the pooreſt, and that the culture is miſchievous to the national intereſts, are ſubjects too curious to be diſmiſſed haſtily: as my opinion is directly the reverſe of the prevalent one in France, it is neceſſary to explain the circumſtances on which it is founded.

It appears by the preceding minutes, that the value of the ſoil thus employed was probably higher than it could be in any other application, good meadows (valuable from their ſcarcity) alone excepted: that the produce much exceeds all others; and laſtly, that the employment depending upon it is very conſiderable. Under ſuch leading and powerful circumſtances, and connected as they are with another not leſs eſſential, that vaſt tracts of the land thus employed are rock and declivities, too ſteep for the plough,—it ſhould ſeem aſtoniſhing, how an idea could ever be entertained that ſuch a cultivation could be prejudicial to a country: it is, however, very general in France.

The queſtion ought to be put ſolely on this iſſue.—Would the ſame land, under any other culture, ſell at the ſame price? 45l. per acre, amounting to thirty years purchaſe, at 30s. an acre, is ſuch a value as France, in the richeſt vales, knows nothing of (meadows alone excepted, which will always be valuable according to ſcarcity and heat of climate,) and we in England as little. But this greater value ariſes not by any means from the richeſt lands, but from thoſe which, conſidered on a medium, are certainly very inferior to the reſt of the kingdom. Great tracks could be applied to no other uſe than that of ſheep-walk or warren; much is ſituated, in ſome of the pooreſt ſoils in the kingdom, on ſands, ſharp gravels, and lands ſo ſtoney, as to be inapplicable to the plough: to poſſeſs a climate that gives the power of raiſing ſuch land to the value of 30l. or 40l. an acre, is beyond all doubt or queſtion, a ſuperiority that cannot be too much valued.

The amount of the produce is not leſs ſtriking: rich paſtures ſell every where at high prices, becauſe they are attended with no expences: and thus a ſmall product may be claſſed with a large one; but it is not ſo with vines. The average of 9l. an acre, on a mean of good and bad years, is ſuch as no other plant will equal that is cultivated in France, watered lands alone excepted. It is only on ſingularly fine ſoils, in certain peculiar diſtricts, that any thing approaching ſuch a product is to be met with. There is no part of Europe, in which a crop of wheat, of ſuch value, is not exceedingly large, and much beyond the average. That of all the wheat, in any of the richeſt counties in England, vibrates between 6l. and 7l. an acre, prepared for perhaps, by a barren and expenſive fallow,—at leaſt by ſomething much leſs profitable than itſelf. What then are we to think of a plant which covers your land with a rich crop of wheat every year?

There are many men, however, in France, who will ſay, YOUR REASONING MUST BE ERRONEOUS; *for there is not a vine proprietor in France, who would not give you his vineyard for your ideal wheat of every year.* The obſervation may be perfectly juſt; but it is no anſwer to me, who am not ſpeaking of *net profit*, but of *produce*. To him who conſiders the ſubject in a national light, and as a politician, the former is not the object; —the great point is to ſecure a large produce. The prince may levy ſuch heavy taxes

in France, the contrary is the fact; I found them on the noble and fertile plain of the Garonne; on the richeſt lands in the vale which extends from Narbonne to Niſmes; in the vales of Dauphiné and of the Loire; and, in a word, indiſcriminately on every ſort of land in all the wine provinces; but I found them alſo on ſuch rocky and bad ſoils as I have deſcribed, and in ſo great quantities as to ſhew how well adapted they are to ſuch ſoils and ſituations. There are two reaſons why vines are ſo often found in rich plains; the firſt is, the export of wheat being either prohibited, or allowed with ſuch irregularity, that the farmer is never ſure of a price: but the export of wine and brandy has never been ſtopped for a moment. The effect of ſuch a contraſt in policy muſt have been conſiderable, and I ſaw its influence in every part of France, by the new vineyards already planted, or begun to be planted, on corn lands, while the people were ſtarving for want of bread; of ſuch conſequence, in the encouragement of any culture, is a ſteady unvarying policy! the fact is the more ſtriking in France, becauſe the vine culture is very much burthened in taxation; but, always poſſeſſing a free trade, it thrives. The ſecond reaſon is, that the culture of this plant is much better underſtood in France than that of corn. An advantageous rotation of crops, and that arrangement of a farm which makes cattle neceſſary to corn, and corn neceſſary to cattle, on which the profit of arable land ſo much depends, is what the French have hardly an idea of. In their practice it is never to be ſeen, and in their books it is never to be read. But their vineyards are gardens; the turnips of Norfolk, the carrots of Suffolk, the beans of Kent, and the cabbages of an Engliſh gentleman, are not ſo clean as the vines of France, while the whole œconomy of the plant is perfectly underſtood, both in theory and practice.

It is a queſtion which I have heard often ſtarted in converſation, whether it be nationally more advantageous that wine ſhould be, as in France, the common beverage, or beer, as in England? How it ſhould ever become a queſtion I cannot underſtand. We are, of neceſſity, obliged to have recourſe to our beſt lands to ſupply our drink; the French, under a good government, would have all theirs from their worſt ſoils. The ſands of Sologne, which are paſſed in the way from Blois to Chambord, &c. &c. are as bad as ours in Suffolk and Norfolk, which feed only rabbits. The French ſands, by means of vines, yield 8l. or 9l. an acre, and thoſe of Suffolk not ſo many ſhillings. Through nine tenths of England, the land that yields wheat in every rotation yields alſo barley. If our hills, rocks, ſands, and chalky declivities gave us our liquor, could we not apply theſe richer ſoils to ſomething better than beer? Could we not, by means of rotations, that made potatoes, tares, beans, and artificial graſſes, the preparatives for wheat alternately, contrive to raiſe infinitely more bread, beef, and mutton, if barley did not of neceſſity come in for an attention equal to what we give to wheat? Wheat, rye, barley, and oats exhauſt, every other crop we raiſe, either actually or conſequentially, ameliorates. Would it be no advantage to ſtrike out one of theſe exhauſters, and ſubſtitute an improver? Would it be no advantage to feed all the horſes of Britain on beans inſtead of oats? Your populouſneſs muſt be proportioned to your quantity of bread, mutton, and beef. With one-fourth of your land under barley, can you have as much bread, mutton, and beef, as if you were not under the neceſſity of having any barley at all? How few agricultural combinations muſt there be in a mind that can entertain doubts on ſuch queſtions? There is a common idea that wine is not a wholeſome beverage, I take this to be a vulgar error; bad wine, or wine kept till ſharp and acid, may be unwholeſome, but ſo is bad beer, or beer kept till acid: but this has nothing to do with the queſtion. If the lower people be forced, through poverty, to drink bad liquor, the complaint ought not to be that wine is unwholeſome, but that a bad government is unwholeſome: the beer drinkers under ſuch a one, will not have much to boaſt. There may

be more ſtrength and vigour of body among the common people in England than among the ſame claſs in France; if this be true, it proves nothing againſt wine. Are the French poor as well fed as ours; do they eat an equal quantity of animal fleſh? Were they as free? Theſe common prejudices, for or againſt certain liquors, are uſually built on very inſufficient obſervation.

But the enemies of vineyards recur to the charge; *the vine provinces are the pooreſt of the kingdom; and you always ſee miſery among the poor proportioned to the quantity of vines.**—This is the main hinge on which the argument turns; it is an an obſervation that has been made to me a thouſand times in France, and converſation never touches on the ſubject but you are ſure to hear it repeated.—There is ſome truth in it as a fact—there is none as an argument.

There is uſually a conſiderable population in vine provinces; and doubtleſs it is not ſurpriſing, that where there is a great population there ſhould be many poor, under a bad government. But there is another reaſon, much more ſatisfactory, which ariſes not at all from the nature of the culture, but from the abuſe of it.

It is the ſmallneſs of the property into which vineyards are uſually divided; a circumſtance carried to ſuch exceſs, that the miſery flowing from it can hardly be imagined by thoſe who are whirled through France in a poſt-chaiſe. The nature of the culture depending almoſt entirely on manual labour, and demanding no other capital than the poſſeſſion of the land and a pair of arms; no carts, no ploughs, no cattle, neceſſarily leads the poor people to this ſpecies of property; and the univerſal practice of dividing it between the children, multiplies theſe little farms to ſuch a degree, that a family depends on a ſpot of land for ſupport that cannot poſſibly yield it; this weakens the application to other induſtry, rivets the children to a ſpot from which they ought to emigrate, and gives them a flattering intereſt in a piece of land, that tempts them to remain, when better intereſts call them elſewhere. The conſequence is, their labouring as much as they can for their richer neighbours; their own little vineyards are then neglected; and that culture, which to a more able proprietor is deciſively advantageous, becomes ruinous to inſufficient funds. But a misfortune, greater even than this, is the uncertainty of the crop; to a man of a proper capital, and who conſequently regards only the average of ſeven years, this is of no account; but to the poor proprietor, who lives from hand to mouth, it is fatal; he cannot ſee half a year's labour loſt by hail, froſt, cold, or other inclemencies of the ſeaſon, without ſeeing, at the ſame time, his children in want of bread; before the ample produce comes, which certainly will come on the average account, he finds himſelf in the hoſpital.

This I take to be the origin of that general and too indiſcriminate condemnation of vineyards in France. The poverty is obvious; it is connected with vines, and for want of proper diſtinctions, it is conſidered as neceſſarily flowing from vineyards; but, in fact, it is merely the reſult of ſmall properties amongſt the poor: a poor man can no where be better ſituated than in a vine province, provided he poſſeſs not a plant. Whatever may be the ſeaſon, the poor are ſure of ample employment among their richer neighbours, and to an amount, as we have above ſeen, thrice as great as any other arable lands afford. That culture which demands 2l. 12s. in hand labour only, whether there be crop or no crop, and which employs women and children of all ages, ought not ſurely to

* So lately as in the Journal Phyſique for May 1790, Monſ. Roland de la Platiere, a gentleman with whom I had the pleaſure of ſome agreeable converſation at Lyons (in the happier period of his life, before he was involved in the miſery and guilt of revolutions,) ſays, that of all countries the vine ones are the pooreſt, and the people the moſt wretched! And in the *Cahier* of the clergy of Auxerre, it is demanded, that the ordonances againſt planting vines on land proper for corn be executed. P. 19.

be

be condemned as the origin of diſtreſs among the poor. Attribute the fact to its true cauſe, the deſire and ſpirit of poſſeſſing landed property, which is univerſal in France, and occaſions infinite miſery. This circumſtance, ſo prevalent in that kingdom, and (comparatively ſpeaking) ſo little known in ours, where the poor are ſo much more at their eaſe than in France and moſt other countries, is very curious to a political obſerver. What an apparent contradiction, that property ſhould be the parent of poverty, yet there is not a clearer or better aſcertained fact in the range of modern politics. The only property fit for a poor family, is their cottage, garden, and perhaps graſs land enough to yield milk; this needs not of neceſſity impede their daily labour; if they have more, they are to be claſſed with farmers, and will have arable fields, which muſt, in the nature of things, be ill cultivated, and the national intereſt conſequently ſuffer.

The explanations I have given of the wine ſyſtem in France will be received, I truſt with candour. To inveſtigate ſuch queſtions fully, would demand diſſertations expreſsly written on every ſubject that ariſes, which would be inconſiſtent with the brevity neceſſary to the regiſter of travels: I attempt no more than to arrange the facts procured; it belongs to the political arithmetician fully to combine and illuſtrate them.

CHAP. XXIII.—*Of the Culture of Silk in France.*

QUERCY.—*Cauſſade.*—IN the avenue leading to this town, two rows of the trees are mulberries, and theſe are the firſt we have ſeen.

Montauban.—Many mulberries here, in rows; and under ſome of them four rows of vines, and then ſix or ſeven-times the breadth of corn. When the leaves are not in time for the worms, or are deſtroyed by froſts, they are fed with lettuce leaves; and if no lettuce, with cabbage, but the ſilk is ſo worthleſs, that the failure is reckoned nearly equal to have none at all.

Toulouſe to Noé.—Mulberry trees are here worth from 6*ſ.* to 20*ſ.* and 30*ſ.* each per annum, according to their ſize.

Noé.—Mulberries worth up to 3 livres per tree, per annum. But ſilk-worms have miſſed much for three years paſt.

Narbonne.—Many mulberries; all within pruned flat heads.

Pinjean.—Olives are a beneficial article of culture, but they prefer mulberries, becauſe they yield a crop every year. On four ſétérées of land they have ſixty trees; and at the ſame time the land yields barley or oats, mown for forage, of which the four ſétérées give ſixty quintals, that ſell at 33*ſ.* the quintal. Single mulberries have paid as far as two louis each, and many one louis. If four ſétérées equal two acres, there are thirty trees on an acre, and the acreable produce of forage will be 52 livres, or 2l. 5s. 6d.

Niſmes to Sauve.—Seven mulberries on an Engliſh rood.

Quéſac.—Mulberry leaves ſell commonly at 3 livres the quintal. A tree yields from one to eleven quintals: two, three, and four are common. Gathering the leaves coſts 12*ſ.* the quintal. Fifteen quintals of leaves are neceſſary for one ounce of *grain* (the ſeed or eggs of the worm): 20 livres the mean price of ſilk per lb.: reckon that an olive-tree pays as well as a mulberry.

Many mulberries about Quéſac, and ſome on very poor dry land. In graſs fields the ground is kept dug around them, as far as the branches extend. Remark ſome ſtones laid around many trees, for ſome diſtance from the ſtem.

Eight

Eight trees in ſomething leſs than an Engliſh rood.

By information, almonds, in Rouverge, pay better than mulberries, and with much leſs expence and attention; 3, 4, 5, and 6 livres a tree.

Gange.—Many fine mulberries about this place, which yield from 3 livres to 8 livres a tree in common, young ones excluded. They yield to twelve quintals of leaves; in general, three, four, or five. The price varies from 3 livres to 10 livres the quintal. They are much more valuable than olives. This year the great cold in April deſtroyed the young buds and hurt the crop greatly. They never think of giving anything to worms but the leaves; have heard of twenty things, but treat the idea with the greateſt contempt, knowing as they do, by the fabric, the worthleſſneſs of ſilk, if the worms are ſo fed.

Lodeve.—Mulberries are more profitable than olives; yield three, four, and five quintals of leaves, which ſell, in common, at 3 livres.

Mirepoix.—Mulberries are here, but none after, in going from Carcaſſonne to St. Martory.

Auch.—A few mulberries near the town.

It is here to be noted, that from Mirepoix to Bagnere de Luchon, and from thence by Pau to Bayonne, and back by Dax to Auch, a line of much more than three hundred miles, I ſaw no mulberry trees.

GUIENNE.—*Leyrac.*—Some few mulberries.

Aiguillon.—A few trees for ſome miles before this place. Behind the chateau, in the town, is a large plantation, formed by the late duke; which, being in the fine vale of the Garonne, the land is cultivated as the reſt, under hemp and wheat; but both thoſe crops are leſs than middling, the expreſſion of the perſon who gave us the information, on account of the roots and ſhade of the trees. The duke gives the leaves to the people in the town, furniſhing alſo the the wood, boards, grain, and whatever elſe is neceſſary for the buſineſs, and he has in return the third part of the ſilk they make. Every one in the place, and all around the country, ſay that he loſes conſiderably by it; aſſerting, that the land thus occupied is worth 500 louis a year; that the crop of ſilk is ſo precarious that he has had eight quintals, and in other years only three, two, and even one; ſo that on an average, his third part gives only 150 louis, and the crops under the trees cannot make up one half of the deficiency. They alſo maintain, that the land is too rich for mulberries; and, to prove that they are right in their ideas, they quoted many gentlemen in the neighbourhood, who have grubbed up their mulberries.

Tours.—They have in the neighbourhood of this city many mulberries, inſomuch, that the value of the raw ſilk has amounted, as they aſſert, in a good year, to a million of livres. I walked ſeveral times into the country to view the trees and make inquiries. Many of the corn fields are regularly planted all over; the gardens are ſurrounded with them; and the roads and lanes have rows of them. The large good trees, in a favourable year, give the value of 4 livres, but not in common. I viewed ſeveral plantations, containing old, young, good, and bad, that gave on an average, one with another, 30*ſ.* which ſeemed, from various accounts, to be a general medium; it, however, excludes very bad years; ſuch, for inſtance, as laſt ſpring, in which they had no crop at all, the froſts in April (note, this is certainly one of the fineſt climates in France) having entirely deſtroyed it. I ſaw ſeveral trees which gave to the amount of 10*ſ.* to 15*ſ.* at ten years old, and 30*ſ.* at the age of fifteen years. Plants, at two years old, are ſold at 3 livres the hundred: at three years old, 4 livres: and good trees, proper to plant out in an arable field, 20*ſ.* each. In regard to the diſtance, at which the trees are planted, they have no general rule. I meaſured many diſtances, in a large corn field,

and found them at two rod ſquare, at an average: in another they were ſix yards by nine; which trees gave 40ſ. on a medium: round a garden they were at five yards from tree to tree: a field, entirely cropped with mulberries, had them in rows at one and a half rod; and between the rows another of ſmall plants, in the manner of a hedge. If ſixty ſquare yards are allowed per tree, there will be eighty on an acre, and if they give 30ſ. each, it will amount to the vaſt produce of 5l. per acre, beſides what can be gained under them; it would, however be a queſtion, whether this under-crop would make up for bad years, that yield nothing? Around fields, in roads, corners, &c. the profit will be greater. It is remarkable, however, that with all this profit attending them, they do not increaſe about Tours, yet not one acre in an hundred adapted to the culture, is ſo employed, which ſhews either a very uncommon want of capital, or doubts whether the cultivation is ſo profitable as it appears to be from ſuch information.

In order to ſpread the cultivation, government eſtabliſhed nurſeries, and gave the trees gratis, until private nurſeries were opened; and in winding the ſilk much aſſiſtance was alſo given to the loſs to government, of 20ſ. per lb.; but now the buſineſs is carried on without any premium of that ſort. Probably ſuch encouragements were of very little uſe; the abuſes incident to all governments would direct ſuch aſſiſtance to be given where it was not wanted; and in that caſe it would, by raiſing diſguſt, do miſchief.

They plant no mulberry but the white; the black they think very bad.

NORMANDY.—*Bizy.*—Having read, in the Memoirs of ſome of the Agriculture Societies in France, that the Marſhal Duke de Belleiſle made a very conſiderable and ſucceſsful experiment on the introduction of the culture of ſilk in Normandy, on his eſtate at Bizy, I had long ago made a note of it, for examining, as the ſteps which proved ſucceſsful in ſuch an attempt in Normandy, might probably have the ſame effect, if applied in a climate ſo ſimilar as that of England. I went to Bizy with this view, and did what I could to find out the proper perſons, concerned in this undertaking, to give me the information that was neceſſary.

Five-and-thirty years ago, the duke began by making ſome extenſive plantations of mulberries, to the amount of many thouſand trees; they ſucceeded well; and in order to draw all the advantage poſſible from them, as the people in the neighbourhood were ignorant and awkward in the proceſs, the duke, by means of a friend in Provence, procured a man, his wife, and all his children, well ſkilled in the whole buſineſs of the ſilk-worm, and eſtabliſhed them at Bizy, in order to inſtruct his own people in it. By theſe means, he made as much ſilk as the produce of leaves would admit. I wiſhed to know to what amount, but could not aſcertain it; but the duke continued his plantations of mulberries during nine or ten years. I tried hard to find out ſome deſcendant or remains of this Provençal family, but in vain; the man was dead, the woman gone, and the children diſperſed; the eſtate, on the marſhal's death, having been ſold, and coming into the poſſeſſion of the Duke de Penthievre, made all theſe circumſtances the more difficult. The great object was, the ſucceſs of the experiment; this inquiry was uniformly anſwered by ſeveral perſons:—it had no ſucceſs at all. It was a favourite project of the duke's, and ſupported with perſeverance, for many years, until his death; but the ſilk did not pay charges; and though he very liberally offered leaves to the poor people, on eaſier terms than they are ſupplied with them in the ſouth of France, and even gave trees; yet nothing more was done, than what his influence and authority forced: and the Provençal family, after ten years' experience, pronounced that the climate would do to make ſilk, but not with profit. To his laſt hour, the duke

had

had ſilk made, but not an hour longer; the practice had taken no root; the country people, by whom alone ſuch an undertaking could proſper, ſaw no inducement to go into the ſcheme, and the whole fell at once into utter ruin and neglect on the duke's death; ſo that the trees themſelves were by degrees condemned, and the number remaining at preſent inconſiderable. Certainly no poſitive phyſical proof, that ſilk will not do in Normandy, but it is a preſumptive one, pretty ſtrongly featured. Go into Languedoc, Dauphiné, and Provence, and the poor people do not want the exertions of marſhals of France to induce them to breed ſilk worms; they have a much more powerful inducement,—the experience that it is their intereſt: had this inducement been preſent at Bizy, the culture would, in more than ten years, have taken root.

Bourbonnois.—*Moulins.*—Monſieur Martin, gardener of the Royal Nurſery here, who is from Languedoc, cultivates ſilk with great ſucceſs; he was ſo obliging as to be as communicative as I could wiſh. Trees of two or three years old, yield a few leaves, but to be ſtripped cautiouſly: at eight to ten years, they come very well into yielding. One ounce of *grains*, that is, of the eggs of the worm, requires twenty quintals (one hundred weight Engliſh) of leaves, and yields from 7lb. to 9lb. of ſilk. He has made as far as 300lb. in a year, the produce of 30001b. of cocoons; and the worms that year eat 12,0001b. of leaves every day, for four or five days together, and fifty perſons were employed for eight days. The whole buſineſs of hatching and feeding employs a month; the winding is afterwards done at leiſure. For care and attendance of the worms, gathering the leaves, and winding the ſilk, he gives one-fourth of the produce, or about 6 livres the pound of ſilk; for ſpinning, 3 livres; in all, 9 livres; reſts profit, 15 livres. The men earn 20*ſ.* to 24*ſ.* a day, and the women 8*ſ.* to 10*ſ.* He prefers this climate for the buſineſs to that of Languedoc, though ſtoves are here neceſſary for keeping the room to the temperature of eighteen degrees, Reaumur; whereas in Languedoc they do without fires. The ſeaſon here varies from fifteen to twenty days; the earlieſt is the 24th of April, and the lateſt the 15th of May. If the leaves are not ready, he keeps the hatching back, by lodging the *grains* in a cool cellar. He has known one tree in Languedoc yield 80 livres a year in ſilk. Moulins and its environs make to the value of 60 or 80,000 livres a year. Monſ. Martin ſells trees, of two years old, at 20 livres the thouſand. The diſtance of planting, if for crops under the trees, thirty feet; if no crops, twenty feet. Of the writers that have treated on this ſubject, he prefers Monſ. Sauvages.

In the particulars of an eſtate to be ſold, was one article relative to the product of ſilk; mulberries enough for 12 oz. of grain, yielding 60lb. of ſilk.

Vivarais.—*Maiſſe to Thuys.*—Firſt meet with mulberries in going ſouth from Auvergne. They yield very largely here; I am aſſured, that many trees in a good year, reach 12 livres each. That in four years after planting, they begin to produce leaves enough for ſtripping. The beſt of them are all grafted. Trees, fifteen years after planting, have, in a very good year, yielded 6 livres. I was ſhewn a ſmall field that yields, one year with another, 120 livres; I ſtepped, and found it fifty yards by ſeventy, or three thouſand five hundred ſquare yards (7l. 4s. 4d. per Engliſh acre); yet the trees were not regularly planted, nor fully; and this beſides the other produce of the ground.

Aubenas.—The ſilk mills here, which are conſiderable, purchaſe the cocoons of the farmer, at 28*ſ.* to 32*ſ.* the pound. The mulberry-trees here are very large.

Villeneuve de Bergue.—Twenty quintals of leaves give one quintal of cocoons, and one quintal of cocoons 10lb. of ſilk. They reckon that the waſte, *débris & dechet*, pay

the ſpinning. Eighteen trees, of ſeven years age, pay 28 livres a year; but ſome trees of ten years old, have been known to give 3 livres each. Three-fourths of an arpent de Paris have been ſold for 400 livres; the ſoil all rock and ſtone, but calcareous. The trees are grafted before tranſplantation, which is at three years old; price, 12*ſ.* and 15*ſ.* each. The ſecond year after planting they begin to gather. The price of the leaves 3 livres the 100lb.; and of gathering 10*ſ.* the quintal. The culture is reckoned more profitable than vines, which are ſometimes grubbed up, to make way for mulberries. Of the ſorts, the *roſe fuille* is beſt. In the road to Viviers, I remarked a tree 2½ feet in diameter; and very large ones are in the bed of a torrent, where no earth (only ſtones) is viſible.

DAUPHINE.—*Montelimart.*—Silk is the great produce of the country; they have mills, where the cocoons are bought, at 27*ſ.* the pound. An ounce of *grains* gives 60lb. of cocoons, and 12lb. of cocoons 1lb. of ſilk: forty middling trees, each yielding a quintal of leaves, being required to feed that proportion of worms. The *grains* are hatched by artificial heat, and the operation demands wood to the amount of 24 livres to each ounce of grains. A common method of conducting the buſineſs is, for the proprietor of the land to find trees and half the *grains*; the poor people the other half and all the labour; and the parties divide the produce between them. The impediments in the culture are,—1. climate; froſts in the ſpring deſtroy the leaves, and, if at a critical time, there is no remedy. I demanded if they had no ſuccedaneum, in ſuch caſe, in feeding the worms with the leaves of ſome other plants? The anſwer was, that experiments had been made upon that point, without any ſucceſs; that the idea, however, was nonſenſe, for the quantity of food was ſo great, as to render it abſurd to think of providing it, not for a certain want, but merely a contingent one; the expence of ſuch a conduct would abſorb all the profit. Nor is it froſts only that are dreaded—great and ſudden heats make the worms fall, and they labour very poorly.——2. The extreme labour of attending the worms, is a great objection to the buſineſs; it is, for the laſt fifteen days, ſo ſevere as to kill many; and, for the laſt eight days, they are cleaned every day.

Upon a compariſon of the culture of the olive and the mulberry, it was remarked to me, that one great advantage of the olive, was the contracted ſpace in which the roots feed, conſiſting chiefly of a tap-root and fibres, which made the crops ſown under them good; but a mulberry threw out a profuſion of roots, fifteen or twenty feet around, in every direction.

They have been known, at eleven years growth, to yield 200lb. of leaves each tree.

The mulberry is found not to like water; for there is in the watered meadows a mound of earth, to keep the water from the roots of theſe trees.

When ſilk-worms are ready to ſpin the cocoon, if they are cut in halves and thrown into vinegar, each worm gives two tranſparent ligaments, very ſtrong, for making fiſhing lines, &c. &c.

Loriol.—Monſ. L'Abbé Berenger, curé of this place, has given an uncommon attention to this culture; he was ſo obliging as to give me the reſult of many years experience on this intereſting ſubject.

Time of ſowing.—There are two ſeaſons; the firſt, with the fruit, freſh, at the end of June:—the ſecond in May, with the ſeed of laſt year, dry; and this is better, becauſe the June ſowing ſuffers ſometimes, if froſts are ſevere, or the weather is both cold and humid. When ſown dry, if too early and cold weather ſucceeds, they are apt to fail. They are often watered.

Tranſplantation.—In April following, thoſe that were ſown in May are tranſplanted, three feet every way, into the nurſery; only half the plants (the beſt) being drawn, the reſt are left till the year after. They are never tranſplanted a ſecond time.

Sort.—The *feuille roſe*, with white or grey fruit, is the beſt; black fruit not known here, but ſaid to be good for leaſing late, and eſcaping froſts in the ſpring.

Grafting.—It is beſt to graft in the nurſery, in May, when they are three years old, at the head, with grafts cut in February preceding, and preſerved in ſand in a cellar: theſe grafts are branches three feet long, which are buried in ſand, except four inches at the end, for three or four knots to ſhoot; if all are buried in the ſand, all the knots will ſhoot. At grafting cut off thoſe knots that have ſhot out, and uſe the reſt. The time is after gathering the leaves of the ſtandard to be grafted, when the plants are five feet, or 5½ feet high. One year after grafting tranſplant, that is, about April. Graft three or four branches.

Soil.—Good and humid ſands, and ſandy loams are the beſt: warm, forward, rich, and friable: rocky and ſtoney ſoils do well; but all clays are bad. On the lighteſt ſtoney lands, the trees come into bearing much ſooner than in the rich vale, but theſe laſt vaſtly longer; on the rich vale land, two hundred years are a common age for them.

Planting.—In bad land plant at eighteen feet ſquare, in moderate at twenty-four, and in very good at thirty-ſix; and, after ſeven or eight years, there can be no crops under them, if at theſe diſtances. There are two ſorts of trees, the one large ſtandards; and the others dwarf ones, which they call *murier nain;* an arpent contains, of courſe, many more in number of theſe than of the others; and they yield, for the firſt ten or fifteen years, a larger produce, but afterwards the greater trees are more productive. The dwarfs are beſt for being ſet in rows, for ploughing between; they are grafted at 1½ feet high; are never watered. The price of trees 2*s.* the hundred, at the age of one or two years; the great trees, at four or five years, for grafting, 20*s.* each, at preſent 15*s.* each, and grafted. The operation of planting is performed by digging a hole ſix feet ſquare, and 2½ or three feet deep; and they commonly lay dung upon the roots.

Cultivation.—The attention with which they manage the trees after planting, merits the higheſt commendation:—after they have been planted two years, a trench is dug around each tree, about two feet deep, which is left open all winter, and filled up again in the ſpring; the year following another is dug, more removed from the tree, which is managed in the ſame manner; and ſo on every year a trench, till the whole land is ſtirred as far as the roots extend. This appears to be a moſt excellent ſyſtem, and preferable to trenching the ground at firſt; as in that way much of it is conſolidated again, before the roots of the young trees reach it.

No crops whatever to be ſown on the land after the trees are of a ſize to have their leaves gathered; as much is loſt in leaves as is gained by ſuch crops.

The trees ſhould never be pruned at any other ſeaſon than March, and but once in two years; the wood pays the expence: they receive one digging per annum, at 6 livres, and a hoeing at 3 livres per arpent.

There is another admirable practice known here, and uſed by all ſkilful cultivators, which is that of waſhing the ſtems of the trees every year, in May, for four or five years after planting. Monſ. L'Abbé Berenger always practiſes this with great ſucceſs.

Produce.—For the benefit of the young trees, they ought not to be ſtripped for ſeven or eight years after planting into the field; they will pay well afterwards for this forbearance;

bearance; but the practice is not common. I viewed a young plantation of Monſ. Blanchard, at preſent in the National Aſſembly, who is famous for his attention to his mulberries; the trees were ſix, ſeven, and eight years old, and none of them had ever been ſtripped, and their appearance was very flouriſhing. Monſ. L'Abbé Berenger approves the practice, but has not adhered to it; his trees, however, are very fine, and do not complain; one plantation, of eight or ten years growth, that have conſtantly been ſtripped, are, notwithſtanding, very fine. There are forty on four hundred toiſes of land, that this year produced, each tree, eight pound of leaves. The beginning of February he planted the land under them with potatoes, which were dug in Auguſt, and produced forty quintals; among theſe potatoes maize was planted in April, in ſquares of five or ſix feet, and the produce of that will be five or ſix quintals, at 8 livres the quintal. He ſhewed me another plantation, of an arpent, of very fine and flouriſhing dwarf trees, which yielded this year eight pound of leaves each tree, and three hundred pound on the arpent. They are ten years old; no crops have ever been ſown under them.

The produce of leaves may be eſtimated at fifty pound from a tree of a toiſe ſquare. The greateſt produce known is ten quintals, from a tree of fifty years old. At twenty years the medium is two quintals. They increaſe till ſixty years old; but are in good perfection at twenty.

The eggs.—A paper of nine inches by fifteen inches, covered with ſmall leaves, ſtuck full of worms, gives one quintal of cocoons; and this is what they call one ounce of *grains*. But proportions will not hold, for the produce is not increaſed proportionably to an increaſe of quantity.

Hatching.—Retarding the hatching of the worms with particular views, is, in many circumſtances, impoſſible. When once the heat of the atmoſphere is come to a certain pitch, the hatching cannot be retarded by cellars. Monſ. Faujas remarked, that in June they would hatch in an ice-houſe; which ſhews that at a certain age they will hatch in ſpite of cold. They never, however, truſt to the natural heat for hatching them, which always does it too ſlowly; it is done with the aſſiſtance of fire, and in the month of May. They begin to hatch at twenty to twenty-two degrees (Reaumur); but artificially it is done at twenty-four degrees. When the eggs happen to have been put in a cellar, at ten degrees, their common temperature, they afterwards hatch with difficulty, and never well; always beſt when they have to undergo but a moderate change.

Feeding.—In this buſineſs all ſorts of food, except the mulberry leaf, is rejected, at the firſt mention, as the moſt ridiculous, impracticable, and impoſſible idea, that ever entered the head of a viſionary; and never could be conceived but by thoſe only who amuſe themſelves with a few worms, without taking the trouble of calculating quantity, expence, and quality of ſilk.

For one ounce of grain, a room of ten feet by fourteen feet, and twelve feet high, is neceſſary; but the larger the better, and with windows only to the north. There ſhould be ten tables, or ſhelves, ſix feet long, and 4½ feet broad, one eighteen inches above another; the firſt expence of which is 60 livres.

Till the 18th of April there is here no ſecurity againſt froſts. Two years ago there were many leaves before that day, and moſt people began their operations; the leaves were all cut off, and they loſt the year entirely, for it is three weeks before the leaves come again. Monſ. L'Abbé Berenger would not truſt appearances; did not begin till after that day, and had as good a year as at any other time.

The expences are uſually borne between the parties, and amount to half the produce, not including the keeping the utenſils in repair. But if they are paid by the owner of the mulberries, ſome of them amount to as follow:—gathering the leaves, 10*ſ.* to 15*ſ.* the quintal; for gathering the dwarfs, only half the price of the others; wood, 15 livres for one, two, or three ounces of eggs in one room; thirty livres for ſix ounces, becauſe in two rooms; 22 livres 10*ſ.* for labour in the houſe; ſpinning, 40*ſ.* per lb. of ſilk. The waſte is worth 20*ſ.* therefore the expence is 20*ſ.*

For the laſt four or five days, eight men are neceſſary to gather leaves for twenty ounces of grain, their voracity being incredible the latter part of the time.

The price of the leaves, if bought, is 4 livres to 5 livres the quintal, never at 3 livres, but has been at 10 livres. From fifteen to eighteen quintals of leaves give one quintal of cocoons, and one of cocoons gives nine pound of ſilk. Cocoons are ſold at 26*ſ.* the pound; ſilk, on an average, at 19 livres. The leaves, diſſected by the worms, are dried, and kept for hogs, ſheep, &c. being worth 4 livres the quintal; and an ounce of grain yields two quintals of ſuch: and the dung of the worms, from an ounce, is worth 4 livres more, being excellent; the beſt indeed of all others.

Two brothers here, Meſſrs. Cartiers have had as far as eighty quintals of cocoons. Monſ. Berenger's three hundred trees on an arpent, at eight pound of leaves each, are twenty-four quintals; and, at 4 livres the quintal, amount to 96 livres: and as ſixteen quintals of leaves give nine pound of ſilk, at 19 livres, it is 171 livres, and for twenty-four quintals, 256 livres, the half of which is 128 livres; hence, therefore, to ſell the leaves at 4 livres the quintal, does not anſwer equally with half the produce (128 livres per arpent de Paris, is 6l. 4s. 3d. per Engliſh acre).

PROVENCE.—*Avignon.*—At ten years growth the mulberries yield a conſiderable produce; at that age they give one hundred pound to one hundred and fifty pound of leaves, but not common. For one ounce of grain, five or ſix very large trees are neceſſary; or, if the leaves are bought, to the amount of 24 livres to 30 livres. The ounce will give from forty pound to fifty pound of cocoons, or five pound of ſilk; but more commonly twelve pound of cocoons for 1 pound of ſilk. Gathering the leaves, 10*ſ.* or 12*ſ.* the quintal, one with another, dwarfs and ſtandards. The waſte pays the ſpinning.

Aix.—Mulberries, beyond all compariſon, more profitable than olives; will give 3 livres or 4 livres per tree, more regularly than olives will 10*ſ.*; but the great plantations of olives are on barren rocks that will not do for mulberries.

Tour d'Aigues.—One ounce of grains requires fifteen quintals of leaves, and gives fifty pound of cocoons; that is fifty pound in a ſmall undertaking, like the houſe of a poor family; but not more than thirty pound in a large building. Monſ. the Preſident has, however, had ſeventy-five ounces of grain that gave forty pound one with another; fourteen pound of cocoons give one pound of organzine ſilk.

On good land, twenty trees, of ten years old, will give fifteen quintals of leaves. The waſte, with the addition of 1*ſ.* per pound, will pay the ſpinning. Wood is 12*ſ.* the quintal, and 1½ quintal will wind and ſpin one pound of ſilk: and one quintal of charcoal will make three pound of ſilk. The common calculation is ten quintals of charcoal for one ounce of grain.

Labour and fuel, 40*ſ.* per pound of ſilk, excluſive of gathering the leaves; but the common method is to find the trees and the grain, and give half the produce for all the reſt. The whole buſineſs, excluſive of winding and ſpinning, employs exactly a month.

Hyeres.—This article is here but little regarded; the number is not conſiderable, nor do they pay nearly the ſame attention to them as in Dauphiné. A tree of twenty years pays about 30*ſ.*; and ſome, of a very great ſize and age, 6 livres.

Frejus.—Cloſe without the town, on the banks of a ſmall canal of irrigation, are five or ſix of the largeſt mulberries I have ſeen, growing cloſe to the water's edge; from which it ſhould appear, that they have here none of that objection to water which was mentioned to me at Montelimart.

Eſtrelles.—At the inn here there is a mulberry tree which yields black fruit, and leaves of a remarkable ſize. I aſked the maſter, if he uſed them for ſilk-worms? *Never*, he replied, *they are no better for them than elm, oak, or pine leaves: it is the white mulberries that are for worms.* So inaccurately underſtood is this point, even in the ſilk countries; for in Languedoc they told me, all ſorts were given indiſcriminately. This tree would be worth 2 or 3 louis a year.

To theſe notes, taken by myſelf, I ſhall add a few others, for the more general elucidation of the ſubject.

Languedoc yields, in a common year, from five hundred to one thouſand two hundred quintals of ſilk *. I have ſearched books in vain for information of the quantity of ſilk produced in all France; but I find the number of looms which work it, by one account, twenty-nine thouſand †, of which eighteen thouſand at Lyons; but by a later and more authentic account, there were at Lyons only nine thouſand three hundred and thirty-five looms, which worked about two million pounds ‡, and in all France ſeventeen thouſand five hundred looms; which, in the ſame proportion, would work about three million, ſeven hundred and ſixty three thouſand pounds In 1784, ſhe imported raw ſilk to the value of 29,500,000 livres, and in 1787, to 28,220,000 livres; call it twenty nine millions, and 20 livres the mean price per lb. it is one million, four hundred and fifty thouſand pounds §; which will leave about two million, three hundred and ten thouſand pounds for the home produce, or 46,200,000 livres, which is ſo groſs an impoſſibility, as to aſcertain to a certainty, the exaggeration of the number of looms, and confirms, in a freſh inſtance, the many errors in the New Encyclopædia. If Languedoc produces only one hundred thouſand pounds, all the reſt of the kingdom cannot produce twenty times as much; for the culture is confined to three or four provinces, except ſmall quantities, that enter for little in a general account. I was informed, at Lyons, that the home growth was about a millions of pounds weight, of two-thirds of the value of the imported per lb. or about 20 livres. This makes the growth to the value of 20,000,000 livres or 875,000l. If ſo, Languedoc muſt produce more than one hundred thouſand pounds, for that province muſt be at leaſt one-fourth, if not one third of the whole. I muſt confeſs I have my doubts upon this point, and think that even one million of pounds much exaggerated, for I croſſed the ſilk country in more than one direction, and the quantity of trees appeared inconſiderable for any ſuch produce. But admitting the authority, and ſtating that the kingdom does produce to the amount of 8 or 900,000l. ſterling, I muſt remark, that the quantity is ſtrangely inconſiderable, and ſeems to mark, that the climate has ſomething in it vaſtly inferior to that of Italy, for the production of this commodity; in which country there are little principalities that give more than the whole kingdom of France;—yet, to human feel-

* *Conſiderations ſur le Commerce de Bretagne*, par Monſ. Pinczon du Sel des Monſ. 12mo. p. 5.

† *Lettre ſur les Muriers & Vers a ſoie Journal Œconomique*, 1756, vol. ii. p. 36.

‡ *Encyclop. Methodique Manuf.* tom. ii. part 2. p. 44.

§ A very late writer was ſtrangely miſtaken in ſaying, that France imports 20,000,0000 of pounds weight. *Mr. Townſhend's Journey through Spain*, vol. i. p. 52.

ings,

ings, there is no compariſon between the climate of France and that of Italy; the former is better, beyond all queſtion. But the ſpring froſts, (found in Italy alſo) are what bring the greateſt deſtruction on this culture, and will for ever retard its progreſs greatly in countries expoſed to them. In 1788, there was a general failure in the ſouth of France, yet acroſs the Pyrenees in Catalonia, the crop was abundant, merely becauſe the ſpring froſts did not paſs thoſe mountains.

In the diſtricts and ſpots of the ſouthern provinces, where the climate has, from experience, been found favourable to ſilk, there is no want of exertion in following it; and about Loriol and Montélimart, it is cultivated with more energy than in any part of Lombardy, yet at ſmall diſtances there are no mulberries, though the proprietors are as rich and as induſtrious as where they are found. The ſame obſervation is to be made every where, and ſeems to mark a great dependence even on the locality of climate, if I may hazard ſuch an expreſſion. Where the culture ſucceeds well, it appears, from the preceding minutes, to be highly profitable, and to form one of the moſt beneficial objects that can attract the attention of the induſtrious.

The Society of Arts at London, have, for many years, offered premiums for mulberries and ſilk in England; and much has been written and argued in favour of the ſcheme, which I take to be a great but harmleſs folly; it may miſlead and deceive a few ingenious ſpeculative people, who may, for what I know, in the courſe of a century, arrive at ſuch ſucceſs as the late King of Pruſſia boaſted, that of making a few thouſand pounds of miſerably bad ſilk, after forty years' exertion. Such ſucceſs is a real loſs; for the ſame attention, time, capital, and encouragement, given to productions natural to the climate, would have made twenty times, perhaps an hundred times, the return. That ſilk may be made in England I have no doubt; but it will be made on the ſame principles, and attended by the ſame dead loſs. The duke of Belleiſle made ſilk in Normandy, and if he had been a great ſovereign, his hundreds would have been thouſands of pounds; but all was loſs, and therefore the ſooner it dropped the better. Another duke failed, not quite ſo much, in the Anguomois; and a third planted mulberries to loſs on the Garonnne; his neighbours did the ſame, but grubbed them up again becauſe they did not anſwer. At Tours, the fineſt climate of France for fruits, and by conſequence well adapted for mulberries, they ſucceed tolerably, but the culture does not increaſe, which carries with it a preſumption, that more ſteady heat in ſpring is wanted than the northern provinces of France enjoy. Such circumſtances bear with great force againſt any ideas of ſilk in England, where the heat is never ſteady; and leaſt of all in ſpring, where late froſts cut off vegetables much hardier than the mulberry, even ſo late as the end of May and beginning of June; and where I have ſeen potatoes turned black by them, even on Midſummer day.

The minutes are invariably deciſive, on the queſtion of feeding worms with any thing but mulberry leaves; the utter impracticability of that ſcheme is ſhewn in a manner too ſatisfactory for any doubts to remain; and the difficulty of retarding the hatching of the worms beyond a certain a period, though not proved with equal deciſion, is yet placed in a light not a little queſtionable. It is upon theſe two modifications of the common practice, that ſilk in England confeſſedly depends; one of them is a vague groundleſs theory; and the other too uncertain to be relied on. But I muſt further remark, that froſts, in ſuch a climate as England, as well as abroad, are to be looked for after the leafing of the mulberry; and conſequently, that the power of retarding the hatching of the eggs would be uſeleſs; the worms in that caſe muſt be put upon other food, which, with ſmall parcels, would make bad ſilk, and with large ones would demand an expence impoſſible to ſubmit to every year, for a mere contingency that might

be demanded only once in three or four. To urge the example of Brandenbourg is idle: in the firſt place, all continental climates are more regular than inſular ones, and therefore the climate of the King of Pruſſia's dominions may be better for the buſineſs; yet with this advantage Normandy failed. In 1788, that is after forty years' exertion, they made, in all the Pruſſian territories, eleven thouſand pounds *, of pounds lighter than French ones. And the author I quote on this ſubject, who commends the project, informs us, that in Brandenbourg, to make a pound of ſilk demands one-fourth more cocoons than in the ſouth of France †; and that the ſilk thus made is ſo bad, that it will do only for certain objects ‡; of the climate he ſays, that it is not favourable enough § for the buſineſs. What encouragement is to be collected from this detail, when it is conſidered that forty years effort of the firſt talents in the world, ſeconded by boundleſs power, forcing plantations and laviſhing premiums, have been able to drive this nail, that will not go but againſt nature, to no greater extent than eleven thouſand pounds of bad ſilk in all the Pruſſian dominions? In my opinion, the reſult of ſuch an experiment yields a more complete condemnation, than if it had never been tried at all in ſuch a climate, and ought to be a leſſon to us in England, not obſtinately to perſiſt in ſuch fooliſh attempts, calculated only to bring ridicule on ſocieties, and diſappointment to individuals. In all probability, the ſilk made in Pruſſia coſt every year ten times more than it is worth; that is to ſay, the ſame royal attention, the ſame premiums, the ſame favours, as giving trees and ſilk eggs, the ſame powerful inſtigations to rectors and curees of the crown livings, &c.—had they been exerted to people the heaths of Brandenbourg with ſheep, would have yielded, in wool alone, ten times the value of eleven thouſand pounds of ſilk; which, if we value it at 12s. a pound, being ſo inferior, amounts only to 6,600l.;—a pretty article of produce for forty years' effort of the moſt energetic government in Europe! fifty thouſand ſheep, at 3s. a head in wool, go much beyond it, throwing mutton out of the queſtion.

An idle error in England, is the idea that this culture demands the labour only of women and children, and old and infirm perſons; the contrary appears the fact; eight men are neceſſary for gathering the leaves for twenty ounces of grain, during four or five days, when the worms are moſt ravenous; and the work of gathering is that of men at all times; for the leaves are not picked, but ſtripped along a branch, by force and hardneſs of hand. And even the feeding and cleaning worms is ſo far from being light work, that it is, on the contrary, very ſevere, ſo as even to kill ſome of the poor people that follow it up; as the induſtrious will follow up all work ſeverely. The culture is therefore very far from what it has been repreſented in England, as being all net profit, demanding only women, children, and the infirm; on the contrary, it would demand many able men, at a buſy ſeaſon of the year, when they could be ill ſpared; and if a propoſal was to be made at ſuch a ſeaſon to a farmer, that he muſt ſpare men enough to gather all the leaves of many hundred pollard trees of any ſort, he would probably ſay, the price of mulberry leaves in the ſilk countries would not pay him; and that double that price would not be an inducement to him, at ſuch a ſeaſon, to derange his buſineſs, and take his men from neceſſary work, for employing them on ſuch a buſineſs. If it is aſked, how the ſame thing can be done in ſilk countries? I anſwer, that labour is but half the price of Engliſh labour, owing to cauſes explained in other chapters; that the multiplied ſubdiviſion of landed property fills many of thoſe countries with hands,—many idle, and many not half employed. To them the culture is highly valuable; but to introduce it in a country, even if the climate would permit, conſtituted and politically arranged, in a manner and upon principles abſolutely contrary, would be

* *Mirabeau Monarch. Pruſſ.* tom. i. p. 180. † Tom. ii. p. 166.
‡ Tom i p. 180. § Tom. ii. p. 166.

attended

attended with difficulties and expences, not in the contemplation of people very ingenious, perhaps, who have amuſed themſelves with ſilk-worms, and paid an attention to them, being a pleaſure, which, if commercially valued, would poſſibly amount to fifty times the value of all the ſilk they make.

CHAP. XXIV.—*Of Cattle in France.*

EVERY part of agriculture depends ſo immediately on the quantity of live ſtock, that a farming traveller cannot give too much attention to ſo material a part of his purſuit. The candid reader will not, however, look to any traveller, that does not reſide long in a place, for ſuch information as is alone to be acquired by ſuch reſidence. He who ſtays a week will gain knowledge beyond the attainment of a day; and the attention of a month will produce fruits beyond the reach of him whoſe obſervations are limited to a week, and yet remain very ſuperficial, when compared with the reſearches of others who live on the ſpot. A mere traveller ſhould gain what his opportunities allow, and what he is thus able to gain is not the leſs valuable, becauſe larger powers would have commanded a greater harveſt.

PAYS DE BEAUCE.—*Toury, &c.*—Their beſt cows ſell at 150 livres; they give twelve or thirteen bottles a day.

Orleans.—They have a remarkable cuſtom of letting chick-weed get a head in their vineyards, which they pluck in May and dry. This they boil in water with bran for their cows, giving it thrice a day, and find that it makes them give double the quantity of milk they would do on any other food. This application of a common plant, that might eaſily be cultivated, and got off time enough for a crop of turnips, probably improving the land, deſerves a trial. The fact is curious.

SOLOGNE.—To *La Ferté.*—Make hay of the weeds of their vineyards, and are the chief ſupport of their cows; do not boil, but give them in bran and water. In ſummer feed with graſs and vine cuttings.—A cow, that gives one to three bottles a day, ſells at 90 livres.

La Fuzelier.—The cows ſmall, and very like Alderneys. Plough bullocks of the ſame breed.

BERRY.—*Verſon.*—A pair of oxen, ready to work, ſell at 400 livres (17l. 1cs.); and when old and paſt labour, but lean, 300 to 340 livres.

Argentan.—A good pair of oxen ſell at 400 livres; common ones 300 livres; very fine to 600 livres (26l. 5s.). All the cattle here are cream coloured, as well as the droves we have met going to Paris.—A cow, not the largeſt, ſells at 150 livres (6l. 11s. 3d.).

LA MARCHE.—To *Boiſmandé.*—Very fine bullocks, well made, and in great order, 600 livres (26l. 5s.) the pair. Theſe oxen are of a beautiful form; their backs ſtrait and flat, with a fine ſpringing rib; clean throat and leg; felt well; and are in every reſpect ſuperior to many breeds we have in England.

La Ville Aubrun.—Work their cows, but they do not give as much milk as if not worked. A good one ſells, with its calf, at 150 livres (6l. 11s. 3d.). They fatten oxen here with raves, a ſort of turnip; begin to uſe them in October or November, and laſt generally about three months. To fatten a pair of good oxen, would take forty-five cart-loads, cut in pieces, and twenty quintals of hay; when the raves are done, they give the flour of rye or other corn, with water enough added to form a paſte; this they leave four or five days to become ſour, and then they dilute it with water, thicken it with cut chaff, and give it to the oxen thrice a day; when fed with raves the oxen do not want to drink. Such a detail would imply a turnip culture of ſome

ſome importance, but though hoeing is not abſolutely unknown, yet the turnips may be conjectured, from the common management, being never to hoe, fearing to cut up the crop by it. The young plant is ſometimes eaten by the fly, in which caſe they ſow again; froſt ſometimes damages the roots, but never deſtroys them entirely. Often ſow wheat after them, and do not cultivate clover: thus three-fourths of the merit of the culture is loſt.

Baſſie.—Their raves yield, according to the year, two or three cart loads per boiſerée of land, about eight of which make an Engliſh acre. A pair of good oxen will eat a cart load in two days, but have hay with them: they are as fond of this root as horſes are of oats: they finiſh with flour of rye, mixed as before-mentioned: they aſſert that the oxen like it the better for being ſour, and that it anſwers better in fatting them. They eat about a boiſeau a day (weighs 22 lb.) and never give this acid liquor without chopped hay. It is proper here to remark, that, in coming to Paris, we have met a great many droves of theſe oxen, to the amount I gueſs of from twelve to fifteen hundred, and that they were with few exceptions very fat; and conſidering the ſeaſon, May, the moſt difficult of the year, they were fatter than oxen are commonly ſeen in England, in the ſpring. I handled many ſcores of them, and found them an excellent breed, and very well fattened.

LIMOUSIN.—*To Limoges.*—A pair of good oxen will eat a cart load of raves a day; begin to feed the end of October: after the raves, give rye-paſte as deſcribed above, but with the addition of a *leven* (*levain*) to the paſte, to quicken the fermentation, and make it quite ſour: at firſt the oxen will not drink it, but they are ſtarved to it; uſually take it the ſecond day, and after they have begun like it much, and never leave a drop. Saw a pair bought laſt winter for 1100 livres (48l. 2s. 6d.); but ſuch as are ready for work, ſell as dear as fat ones, which is remarkable. An arpent of raves yields forty cart loads; and a pair of good oxen will eat a load a day. They have two kinds; one very large and flat, the other more round, and with a root that enters the ground deeply. They generally manure thoroughly for them in March, and plough in ſo early that the dung may be quite rotten and mixed with the ſoil by the end of June. Begin to ſow a fortnight after Midſummer: they are not hurt by the froſt when it thaws with rain, but are apt to rot when it thaws with the ſun. About Chriſtmas they plough up the part eaten, and ſow rye, the reſt for oats. They plough their cows, milking them once a day, from three to five bottles.

Limoges.—The great ſtaple of the whole province is fat cattle, ſent to Paris and other towns, as well as hogs, that go for ſalting to the ſea ports. The cattle are all of a yellow cream colour, with no other diſtinction than having, one in an hundred perhaps, a tendency to a blood red: all have horns of a medium length; legs ſhort in proportion to their carcaſſes, which are deep and heavy; the ſhape in general very good; the back ſtraight and broad; the rib ſpringing, and conſequently well arched; the hips and rumps very fat; the tail riſing high from the rump; which I note, not becauſe ſuch points are of *real* importance, but becauſe it is eſteemed by ſome as a proof of a bad breed: the weight I gueſs to be from 60 to ſeventy ſtone (14 lb.;) ſome riſe to eighty, and a very few may be ſo low as fifty. Their hogs are many of them large: ſome with lop ears like our old Shropſhire's.

St. George.—The ſame breed of oxen continues here, but hardly ſo large; they are always kept in high order: a pair draws the weight commonly of 2000 lb. and ſupports ſuch labour well. They rear calves by keeping them eight or ten months with the cows.

Uſarch.—Fatten their oxen with raves, as above, and then with rye-flour, made into a paſte with leaven, and given four, as before deſcribed. They alſo fatten ſome with potatoes, mixed with cheſnuts, and alſo alone; but in either caſe boiled thoroughly, and given freſh as boiled every day. They have a great opinion of their fattening quality: they feed their cows alſo with this root, and find that it gives a great increaſe of milk. Calves reared, either for oxen or cows, ſuck ten or twelve months, which is the univerſal practice.

QUERCY.—*Brive to Creſſenſac.*—A practical farmer, that has the largeſt oxen I had met with, gave me the following account:—they fatten with maize, but, in order to render it tender, pour boiling water on it, cover it up cloſe, and give it to the cattle the ſame day; and in this method it is a moſt excellent fattener, both of oxen and poultry. But in order to make them fatten ſooner and better, this farmer gives them, every night, and ſometimes of a morning, a ball of pork-greaſe, as large as an apple; he ſays this is both phyſic and food, and makes them thrive the better.

To Souillac.—Fat their oxen here alſo with raves, and give them alſo to lean beaſts; the maſter of the poſt town where we ſtopped ſays, that he ſent laſt year to Paris, four raves that weighed 100lb. They ſoil their oxen with crops of the *vicia latharoides*, and of the *lathyrus ſetifolius*; of theſe plants he ſpoke ſo highly, when given in the ſoiling way, in the ſtable, that he ſaid the oxen became ſo fat that they could not get out of the ſtable if they were not worked. He ſhewed me ſome oxen that did not allow a doubt of the truth of what he ſaid, for they were as fat as bears. The fact of hog's greaſe being given, was here confirmed; it is given to increaſe the appetite, and anſwers ſo well, that the beaſts perfectly devour their food after it, and their coats become ſmooth and ſhining. The moſt fattening food they know for a bullock, is walnut oil-cake. All here give ſalt plentifully, to both cattle and ſheep, being but 1*ſ.* a pound. But this practice is, more or leſs, univerſal through the whole kingdom.

Cahors.—Nearly all the draft cattle are mules, and yoked as oxen in England, only collars to the yoke inſtead of bows. Cows and oxen all cream coloured; very good, and in fine order.

LANGUEDOC.—*Toulouſe.*—Very fine cream-coloured horned oxen; a pair good working ones ſell at 25 louis.

St. Gaudents.—Price 120 livres, (5*l.* 5*s.*); in the winter kept in ſtables, and fed upon hay.

Bagnere de Luchon.—Every pariſh in theſe mountains has common paſtures for their cattle and ſheep, and each inhabitant has a right to ſend as many as they can feed in winter. They are on the mountain three or four months, under the care of people who milk the cows, goats, and ewes, and give the proprietor, at the end of the period, two cheeſes of eighteen pounds for each cow; or four goats; or ten ewes; the price of the cheeſe is 5*ſ.* the pound; but 10*ſ.* at a year old, and the overplus, if any, is their reward. A cow is reckoned to pay above 2 louis a year, valuing the calf, as they do, at a louis. A pair of cows, ſtout enough to be worked, ſell at 10 to 12 louis; and a pair of oxen 12 to 15 louis.

BASQUE.—Informed by a gentleman, at Bagnere de Luchon, that the mountains in this province afford a very great ſupply of food, in ſummer, for cattle, which are ſent to winter on the *landes* of Bourdeaux, where they juſt get a living on weeds, rough graſs, branches of trees, &c.; and that they pay only 5*ſ.* a head for wintering theſe cattle, which is perfectly incredible; but I note it as reported. He alſo informs me, that thoſe

mountains of Baſque, and alſo of Navarre, breed moſt of the oxen that I ſaw in Limouſin; they are ſold thither calves; and are all cream-coloured, or yellowiſh.

LANGUEDOC.—*Pinjean to Montpelier.*—Ploughing with fine large oxen, in good order; ſome cream-coloured, others deep red; middling horns. The ſame breed has been found all the way, almoſt from the Loire to Barcelona; and from Calais to the Loire, variations of the ſhort-horned Alderney, or Norman cow.

BEARN.—*Navarens.*—Cream-coloured cows, 100 livres to 120 livres.

GASCOIGN.—*St. Palais to Anſpan.*—In 1786, on theſe mountains, the ſcarcity of forage being very great, they cut much fern and made hay of it, and it anſwered well; horſes, mules, and young cattle, eat it freely; but it was cut early. Through this country, and nearly to Bayonne, they fatten oxen with raves, which they cultivate carefully for an after-crop. They anſwer perfectly well, without other food being given; when the raves are done, they ſometimes give maize-flour, but dry, knowing nothing of the Limouſin method.

Port St. Marie.—Very fine cream-coloured oxen.

Aguillon.—Ditto, very fine and beautiful.

Tonnium to La Morte Landron.—As we advance on the Garonne, the oxen are yet finer; meet common ones at 600 livres and 700 livres the pair; but ſome very fine that riſe to 1000 livres, and 1200 livres, (52l. 10s.) as they are in the plough; all are however, in fine order, and many fat. Breed their own cattle; a pretty good cow ſells at 250 livres; harneſs and work them as oxen, but gently while they give milk.

La Réole.—Work their cows: put oxen to work at three years old, and keep them to it four, eight, and even ten years, according as they are found fit for it. Riſe in price to 1200 livres the pair. The leaſt weight they are put to draw, is 20 quintals (a ton Engliſh) a pair; but good oxen draw 30 quintals with eaſe: all harneſſed by the horns; they are fed now upon maize leaves, which are ſo excellent a food for them, that it is ſown in ſucceſſion thickly for mowing for ſoiling. Give alſo at preſent vine leaves, which are very good food. See them ſhoe an ox; they are faſtened by the horns in a ſhoeing ſtall, and lifted from the ground, if wanted, by two broad bands of hemp, that paſs under the belly. The ſhoe turns over the toe, or hoof, as in England; ſhoe for ploughing as well as for the road.

Barſac.—Oxen, through all this country, where they are found fine, are dreſſed as regularly every day as horſes.

ANGOUMOIS.—*Barbeſieux to Petignac.*—Cream-coloured oxen; 20 louis to 25 louis the pair.

POITOU.—*Poitiers.*—Red coloured oxen, with a black tinge in the head; the ſign of the Poitou breed.

Chateaurault.—Good cream-coloured and red oxen, but they have declined ſince Bourdeaux. The good ones here ſell at 25 louis the pair. They plough with a pair, without driver or reins.

Amboiſe.—Cream-coloured, and ſome blackiſh; and, which ſhews we are got to the Loire, ſome Norman ones, with mixtures. This great river is the ſeparation of breeds in a remarkable manner. All the way from Tours, to Blois, they raiſe raves for cows and oxen, but never hoe them; and the ſcale not at all reſpectable.

Petiviers.—Cows quite the Norman breed, and the earth tilled by horſes.

ISLE OF FRANCE.—*Liancourt.*—Exceedingly deficient. Some poor ill fed cows upon the commons were all that I ſaw, except the Dutcheſs of Liancourt's dairy of Swiſs cows.

and tan coloured about the eyes, which are the diſtinctions of the Poitou breed. At Michaelmas they are fat; and ſent to the fair at Poiſſy, that is Paris: ſuch as are bought in at 240 livres lean, are ſold fat at 350 to 400 livres. (15l. 6s. 3d. to 17l. 10s.) An acre of good paſturage carries more than one of theſe beaſts in ſummer, beſides winter fattening ſheep. This acre is four verges, each forty perches, and the perch twenty-two feet, or a very little better than two Engliſh acres. The rent of the beſt of theſe paſtures (called *herbages* here) amounts to 100 livres (4l. 7s. 6d.) per Norman acre, or nearly 2l. 3s. 9d. the Engliſh; the tenant's taxes add 14 livres (12s. 3d.) or 6s. 1½d. per Engliſh acre. The expences may be ſtated thus:

	liv.
Rent, - - - -	100
Taxes, - - -	14
Suppoſe 1½ ox fattened, bought at 240 livres,	360

Intereſt of that total,

Say, -

Ox and an half fat, at 375 livres
Expences, - -

Profit, - -

Which is about 1l. 6s. 6d. per Engliſh acre profit; and will pay a man well, the intereſt of his capital being already paid. As theſe Norman graziers are generally rich, I do not apprehend the annual benefit is leſs. In pieces that are tolerably large, a ſtock proportioned to the ſize is turned in, and not changed till they are taken out fat. Theſe Poitou oxen are for the richeſt paſtures; for land of an inferior quality, they buy beaſts from Anjou, Maine, and Bretagne. The ſheep fed in the winter do not belong to the graziers, but are joiſted; there is none with longer wool than five inches, but the paſture is equal to the fineſt of Lincoln. In walking over one of theſe noble herbages, my conductor made me obſerve the quantity of clover in it, as a proof of its richneſs; it was the white Dutch and the common red: it is often thus—the value of a paſture depends more on the *diadelphia* than on the *triandria* family.

To Liſieux.—This rich vale of the Pay d'Auge, ſome years ago, was fed almoſt entirely with cows, but now it is very generally under oxen, which are found to pay better. Whatever cows there are, are milked three times a day in ſummer.

To Caen.—The valley of Corbon is a part of the Pay d'Auge, and ſaid to be the richeſt of the whole. In this part, one acre, of one hundred and ſixty perches of twenty-four feet, or about (not exactly) 2¼ acres Engliſh, fattens two oxen. Such rents are known as 200 livres (3l. 17s. per Engliſh acre) but they are extraordinary: the proportions here are rather greater, and more profitable than in the former minute. They buy ſome beaſts before Chriſtmas, which they keep on the paſturage alone, except in deep ſnows; theſe are forwarder in ſpring than ſuch as are bought then, and fatten quicker; they have alſo a few ſheep. There are graziers here that are landlords of 10,000 livres, and even 20,000 livres a year, yet 100 acres are a large farm.

Bayeux.

Bayeux.—The rich herbages about this place are employed in fattening oxen, of the Poitou breed, as before; bought lean, on an average, at 200 livres, and ſold fat at 350 livres. Their cows are always milked thrice a day in ſummer; the beſt give twelve pots a day, or above four gallons, and ſell at 7 or 8 louis each.

Iſigny to Carentan.—Much ſalt marſh, and very rich; they fat oxen; but I was ſurpriſed to find many dairy cows alſo on theſe very rich lands. A cow they ſay ſometimes pays 10 louis in a year; giving eight pound of butter in a week, at 20*ſ.* to 30*ſ.* a pound at ſome ſeaſons, but now (Auguſt 25) only 10*ſ.* which they ſay is ruinouſly cheap. All are milked thrice a day. Others informed me that a cow gives ten pound a week, at the average price of 15*ſ.* Theſe cows reſemble the Suffolk breed, in ſize and brindle colour, round carcaſe, and ſhort leg; and would not be known from them but by the horns, which are of the ſhort Alderney ſort. The profit on fattening a cow here they reckon at 72 livres, and an ox of the largeſt ſize 300 livres. They have alſo a common calculation, that dairy cows feed at the expence of 8*ſ.* a day, and yield 20*ſ.* leaving 12*ſ.* profit. It is remarkable, and cannot be too much condemned, that there are no dairies in this country: the milk is ſet and the butter made in any common room of a houſe or cottage.

Carentan.—Many oxen are bought at Michaelmas, and kept a year. They eat each in the winter three hundred bottes of hay, or 50 livres, but leave 150 livres profit, that is, they riſe from 300 livres to 450 livres. Cows pay, on an average, 100 livres, and are kept each on a vergé of graſs, the rent of which is from 30 to 40 livres. As the vergé is 40 perches, of 24 feet, or 23,040 feet, it is equal to 96 Engliſh ſquare perches, which ſpace pays 100 livres, or per Engliſh acre 7l. 5s. 3d.; but all expences are to be deducted, including what the wintering coſts. Here they have milk-rooms. They work oxen all the way from Bayeux, in yokes and bows, like the old Engliſh ones, only ſingle inſtead of double.

Advancing; cows ſell ſo high as 10 and 12 louis. Many are milked only twice a day: good ones give 1¼ or 1½ pound of butter a day. They remark that cows that give the largeſt quantity of milk do not yield the largeſt quantity of butter. Fat cows give much richer milk than others.

Again; a good cow gives ſix pots of milk a day, which pays in butter 24*ſ.* Three thouſand livres profit has been made by fatting thirty cows. A great number of young cattle all over the country, eſpecially year olds.

BRETAGNE.—*Rennes.*—Good oxen of Poitou, 400 livres to 600 livres the pair; they are harnaſſed by the horns. A good cow, 100 livres. Milk but twice a day.

Landerviſier.—I was at the fair here, at which were many cows; in general of the Norman breed, but ſmall: one of the ſize of a middling Alderney, 4 louis, but ſaid to be dear at preſent. Colour, black and white, and red and white.

Quimper.—Many black and white ſmall, but well made, cows on the waſtes here; a breed ſomewhat diſtinct from the Norman; different horns, &c.

Nantes.—Many Poitou oxen; cream coloured; black eyes, tips of horns, and end of tail; about fifty or ſixty ſtone fat; all yoked by the horns.

Nonant.—Much rich herbage; an acre of which feeds two oxen to the improvement of 160 livres. Many cows are fattened alſo; and ſome milked always three times a day in ſummer.

To Gacé.—Some very fine cream coloured oxen, of ſixty ſtone or more; but in general, red and white, not Poitou.

ISLE OF FRANCE.—*Nangis.*—Cows ſell at 4 louis or five louis; oxen, half fat, from 8 louis to 11 louis. They come from Franche Compté.

CHAMPAGNE.

CHAMPAGNE.—*Mareuil.*—Monſ. Le Blanc's Swiſs cows give eighteen pints, of Paris (the Paris pint is an Engliſh quart) of milk per diem, and hold their milk remarkably long. He gave 40 louis for a bull and a cow.

LORAINE.—*Braban.*—A ſmall cow, 75 livres.

ALSACE.—*Straſbourg.*—A cow, 6 louis; an ox the ſame.

Iſſenheim.—Cows improve as you approach Franche Comté.

Befort.—Good oxen, red and cream coloured, to 25 louis a pair.

Iſle.—Here much ſmaller; and they ſay the fine ones I have ſeen are from the mountains on the frontiers of Swiſſerland.

BOURGOGNE.—*Dijon to Nuys.*—Small oxen in this country, and yoked by the horns.

Autun to La Maiſon de Bourgogne.—Good oxen drawing by the horns.

AUVERGNE.—*Clermont.*—Salt given twice a day to cows that give milk. In the mountains the price of cows, 150 livres to 200 livres; a few, 300 livres: an ox, from 200 livres to 450 livres.

Izoir.—A pair of good oxen, 16 louis to 18 louis, which will draw two thouſand pounds. The Poitevins will buy only red cattle in Auvergne, having remarked that they fatten eaſier *.

VIVARAIS.—*Coſterons.*—A ſmall cow, 4 louis.

PROVENCE.—The cities of Aix, Marſeilles, and Toulon, are fed by oxen, cows, and ſheep, from Auvergne, which come every week; a few from Piedmont.

Tour d'Aigues.—A pair of good oxen, 18 louis or 20 louis. When they have done working, they are fattened with the flour of the *lathyrus ſativus*, &c. made into paſte, and balls given freſh every night and morning; each ox, two or three balls, as large as a man's fiſt, with hay.

Obſervations.

FROM the preceding notes it appears, that in Normandy, the Bas Poitou, Limouſin, Quercy, and Guienne, the importance of cattle is pretty well underſtood; in ſome diſtricts very well; and that in the paſturage part of Normandy, the quantity is well proportioned to the richneſs of the country. In all the reſt of the kingdom, which forms much the greater part of it, there is nothing that attracts notice. There would, in eighteen-twentieths of it, be ſcarcely any cattle at all, were it not for the practice of ploughing with them. There are ſome practices noted, which merit the attention even of Engliſh farmers.—1. The Limoſin and Quercy methods of fattening, by means of acid food.——It is remarkable, that I have found hogs to fatten much better with their food become acid, than when uſed freſh †. But in England no experiments, to my knowledge, have been made, on applying the ſame principle to oxen; it is, however, done in the Limouſin with great ſucceſs. The ſubject is very curious, but the brevity neceſſary to a traveller will not allow my purſuing it at preſent.——2. The practice in Flanders, and, in ſome degree, in Quercy, &c. of keeping cows, oxen, and all ſorts of cattle, confined in ſtables the whole year through.—This I take to be one of the moſt correct, and probably one of the moſt profitable methods that can be purſued; ſince, by means of it, there is a conſtant accumulation of dung throughout the year, and the food is made to go much farther.——3. Milking well-fed cows thrice a day, as in Normandy.—Experiments ſhould be made on the advantages of this practice, which will probably be found not inconſiderable; it is never done, either in England nor in Lombardy.

* *See alſo Voyages D'Auvergne, par Monſ. Le Grand D'Auſſy*, 8vo. 1788. p. 273.

† *Annals of Agriculture*, vol. i. p. 340.

Except in the provinces I have named, the management of cattle in France is a blank. On an average of the kingdom, there is not, perhaps, a tenth of what there ought to be: and of this any one muſt be convinced, who reflects that the courſes of crops throughout the kingdom are calculated for corn only; generally bread corn; and that no attention whatever is paid to the equally important object of ſupporting great herds of cattle, for raiſing manure, by introducing the culture of plants that make cattle the preparative for corn, inſtead of thoſe barren fallows which are a diſgrace to the kingdom. This ſyſtem of interweaving the crops which ſupport the cattle, among thoſe of corn, is the pillar of Engliſh huſbandry; without which our agriculture would be as miſerable and as unproductive as that of France. The importance of graſs in ſuch views, is little underſtood in France; but in proportion as corn is the ultimate object, ſhould be the attention that is paid to graſs. England, by the immenſe extent of her paſtures, has a prodigious preparation always ready for corn, if it was demanded. He who has graſs can, at any time, have corn; but he who has corn, cannot at any time have graſs, which demands one or two years' accurate preparation. In proportion to your graſs, is the quantity and maſs of your improvements; for few ſoils, not laid to graſs, are at their laſt ſtage of improvement. The contrary of all this takes place in France; and there is little appearance, from the complexion of thoſe ideas which are at preſent faſhionable there, that the kingdom will be materially improved in this reſpect: the prejudices in favour of ſmall farms, and a minute diviſion of property, and the attention paid to the pernicious rights of commonage, are mortal to ſuch an improvement; which never can be effected but by means of large farms, and an unlimited power of encloſure.

Horſes.

THIS is an animal about which I have never been ſolicitous, nor ever paid much attention; I was very early and practically convinced of the ſuperiority of oxen for moſt of the works of huſbandry; I may, indeed, ſay for all, except quick harrowing: and if oxen trot ſix miles an hour with coaches, in Bengal, which is the fact, they are certainly applicable to the harrow, with proper training. To introduce the uſe of oxen in any country, is ſo important an agricultural and political object, that the horſe would be conſidered merely as adminiſtering to luxury and war. The very few minutes I took, I ſhall inſert in the order they occurred.

LIMOUSIN.—This province is reckoned to breed the beſt light horſes that are in the kingdom; and ſome capital regiments of light horſe are always mounted from hence; they are noted for their motion and hardineſs. Some miles to the right of St. George, is Pampadour, a royal demeſne, where the King has a *haras* (ſtud): there are all kinds of horſes, but chiefly Arabian, Turkiſh, and Engliſh. Three years ago four Arabians were imported, which had been procured at the expence of 72,000 livres (3149l.); and, owing to theſe exertions, the breed of this province, which was almoſt ſpoiled, has been much recovered. For covering a mare, no more is paid than 3 livres, which is for the groom, and a feed of oats for the horſe. They are free to ſell their colts to whom they pleaſe; but if they come up to the King's ſtandard of eight, his officers have the preference, on paying the ſame price offered by others; which, however, the owner may refuſe, if he pleaſes. Theſe horſes are never ſaddled till ſix years old, and never eat corn till they are five; the reaſon given is, that they may not hurt their eyes. They paſture all day, but not at night, on account of the wolves, which abound ſo in this country as to be a nuiſance. Prices are very high; a horſe of ſix years old,

a little more than four feet ſix inches high, ſells for 70 louis; and 15 louis have been offered for a colt at one year old. The paſtures are good, and proper for breeding horſes.

Cahors.—Bean-ſtraw they reckon excellent for horſes, but not that of peaſe, which is too heating.

Agen.—Meet women going to this market, loaded with couch roots to ſell for feeding horſes. The ſame practice obtains at Naples.

SAINTONGE.—*Monlieu.*—Never give chaff to their horſes, as they think it very bad for them.

ISLE OF FRANCE.—*Dugny.*—Monſ. Cretté de Palleul has found cut chaff one of the moſt œconomical foods that can be given to horſes; and his machine for cutting it is by far the moſt powerful one that I have any where ſeen. It is a mill turned by a horſe; the cutting inſtruments are two ſmall cylinders, that revolve againſt each other, circular cutting hoops being on their ſurface, that lock into each other; thoſe of one, plain, but of the other, toothed; juſt above them is a large trough or tray, to hold a truſs of ſtraw, which weighs twelve pounds, and the machine cuts it into chaff in three minutes, without putting the horſe out of his pace; and in two minutes, by driving him quicker; a man attends to ſpread the ſtraw equally in the tray, as it is ſucked in by the revolving cylinders; a boy driving the horſe. One of the machines common in England, for dreſſing corn, is at the ſame time turned: the whole is in a building of eight yards ſquare.

NORMANDY.—*Iſigny.*—The rich herbages here are fed, not only with bullocks and cows, but alſo with mares and foals.

Carentan.—Colts, bred here, ſell for very high prices, even to 100 louis at three years old; but in general good ones from 25 to 30 louis.

BRETAGNE.—*Rennes.*—Good horſes ſell at 150 livres. The author of the *Conſiderations ſur le Commerce de Bretagne*, ſays, p. 87. that he has ſeen many markets in the biſhopricks of Rennes and Nantes, where the beſt horſe was not worth 60 livres.

Morlaix.—See in this vicinity, for ſeveral miles, ſome fine bay mares with foals.

Auvergnac.—Informed that Bretagne exports twenty-four thouſand horſes, from 12 to 25 louis each; and the country that chiefly produces them, is from Lamballe to the ſea beyond Breſt.

ALSACE.—*Straſbourg.*—A good farm houſe, 12 louis.

To Scheleſtadt.—Clover mown for ſoiling all the way.

The Norman horſes for draught, and the Limouſin for the ſaddle, are eſteemed the beſt in the kingdom. Great imports have been made of Engliſh horſes for the coach and ſaddle. It is no object to leſſen that import, for their own lands can be applied to much more profitable uſes than breeding of horſes. The *œconomiſtes* were great enemies to the uſe of oxen, and warm advocates for that of horſes becoming general; one of the many groſs errors which that fanciful ſect were guilty of.

Hogs.

GASCOIGN.—*St. Palais to Anſpan.*—See many fine white, and black and white hogs; they are fed much on acorns, but are fattened throughout this country on maize ground to flour, and boiled with water to a paſte, and given freſh, milk warm, every day. Some on beans. They are turned a year old when put up to fatten; riſe to the weight of two or three quintals. Theſe are the hogs that furniſh Bayonne with the hams and bacon, which are ſo famous all over Europe. The hams ſell at 20*ſ.* the pound.

I have

I have referved this minute, from ſome others of little conſequence, for the opportunity of remarking, that, in England, the old cuſtom of feeding hogs with warm food, is totally diſcontinued; but it well deſerves experiment, whether it would not anſwer in fattening, and alſo in the nouriſhment of ſows and pigs. Such experiments are difficult to make ſatisfactorily, but yet they ought to be made by ſome perſons that are able. Warm food in winter, regularly given, I ſhould ſuppoſe, muſt be more fattening than that which is cold, and, in bad weather, half frozen.

CHAP. XXV.—*Of the Culture of various Plants in France.*

IN the courſe of my inquiries into the French agriculture, I made ſome minutes on various articles, that do not merit a ſeparate chapter aſſigned to each; I ſhall therefore introduce them to the reader alphabetically. It may be of uſe to future travellers to know what articles are cultivated in that kingdom, that they may give to each ſuch an attention as may ſuit their purpoſe.

Almonds.

PROVENCE.—*Aix.*—More ſubject to accidents than olives; ſometimes three, four, and five bad crops to one good. Olives flour in June, but almonds in February, and conſequently ſubject to froſts. The produce of a good tree is commonly 3 livres.

Tour d'Aigues.—Do not yield a good crop oftener than once in ten years. Price, 36 to 40 livres the quintal: four and a half quintals in the ſhell yield one clean: the price has been 70 livres. Price of the piſtachio almond, 6 livres the fifteen pound in the ſhell. Some few fine almound trees will give a quintal in the ſhell. They are a moſt hazardous culture, by reaſon of the fog that makes them drop; the worm that eats; and the froſt that nips.

Beans.

SOISSONOIS.—*Coucy.*—In the rich lands cultivated, in the courſe of, 1, beans; 2, wheat, remark now (October 31) ſome beautiful curled and luxuriant pieces of wheat, which, from the beans among it, appear to have been ſown after this crop.

ARTOIS.—*Lillers to Bethune.*—Many beans through all Artois, in drills at twelve or fourteen inches, very fine and very clean; the culture is as common and as good as in Kent, and they have a much richer ſoil. Wheat is ſown after muſtard, flax, and beans; and is better after beans than after either of the other two crops.

ALSACE.—*Wiltenheim to Straſbourg.*—Many pieces; good and very clean. Produce, ſix ſacks (of one hundred and eighty pound of wheat) per arpent of 24,000 feet (twenty-eight buſhels per Engliſh acre).

Scheleſtadt.—Produce, ſix to eight ſacks, at 7 to 12 livres, (ſeven at 9 livres is 4l. 7s. per Engliſh acre).

The culture of beans is by no means ſo common in France as it ought to be; they are a very neceſſary aſſiſtance on deep rich ſoils in the great work of baniſhing fallows; they prepare on ſuch ſoils better than any other crop for wheat, and are of capital uſe in ſupporting and fattening cattle and hogs.

Broom.

BRETAGNE.—*Rennes.*—The land left to it in the common courſe of crops. It is cut for faggots; ſold to the bakers, &c.

Morlaix.—Cultivated through all this country, in a very extraordinary ſyſtem; it is introduced in a regular courſe of crops, and left three or four years on the land; at which growth cut for faggots, and forms the principal fuel of the country. It is a vaſt growth, much ſuperior to any thing I ever ſaw; ſix or ſeven feet high, and very ſtout; on regular lands, with intervals of two or three feet. Price ſometimes of a cord of wood, 30 livres. Does this apologize for ſuch a ſyſtem?

Breſt.—The broom ſeed is ſown among oats, as clover is in other places, and left four years, during all which time it is fed. The faggots of a good journal will ſell for 400 livres (14l. per Engliſh acre). The faggots weigh fifteen pound, and ſell fifty for 9 livres to 12 livres, being a three-horſe load. It is only within the reach of Breſt market that it is worth 400 livres, elſewhere only 300 livres the beſt. Four years broom improves land ſo much, that they can take three crops of corn after it.

BOURGOGNE.—*Luzy.*—When I left Bretagne, I never expected again to find broom an article of culture; but the rye-lands of all this country, and there is nothing but rye in it, are left, when exhauſted by corn, to cover themſelves with broom, during five years; and they conſider it as the principal ſupport of their cattle.

To Bourbonlancy and BOURBONNOIS.—*Moulins.*—Much broom through all this diſtrict of rye-land.

Carrots and Parſnips.

FLANDERS.—*Cambray.*—See ſome fine carrots taken up, which, on inquiry, I find are for cows. They ſow four pound of ſeed per arpent; hoe them thrice: I gueſſed the crop about four buſhels per ſquare rod An arpent ſells, for cattle, at 180 livres. the purchaſer taking up (5l. 5s. per Engliſh acre). After them they dung lightly, and ſow wheat.

Orchies to Lille.—The culture here is ſingular; they ſow the ſeed at the ſame time, and on the ſame land, as flax, about Eaſter; that crop is pulled in July, the carrots then grow well, and the produce more profitable than any other application of the flax ſtubble. They yield, I gueſs, from ſixty to eighty buſhels, and ſome more, per Engliſh acre; but what I ſaw were much too thick.

Argentan to Bailleul.—Carrots taken up, and guarded, by building in the neateſt and moſt effectual way, againſt the froſt; they are topped, laid in round heaps, and packed cloſe, with their heads outwards; and being covered with ſtraw, in the form of a pyramid, a trench is digged around, and the earth piled neatly over the ſtraw, to keep out the froſt. In this manner they are found perfectly ſecure.

ARTOIS.—*Aſſ to Aras.*—A ſprinkling of carrots, but none good.

BRETAGNE.—*Ponton to Morlaix.*—Many parſnips cultivated about a league to the left; they are ſown alone and hoed. They are given to horſes, and are reckoned ſo valuable, that a journal is worth more than one of wheat. Nearer to Morlaix, the road paſſes a few ſmall pieces. They are on beds, five or ſix yards broad, with trenches digged between, and on the edges of thoſe trenches a row of cabbages.

Morlaix.—About this place, and in general through the biſhoprick of St. Pol de Leon, the culture of parſnips is of very great conſequence to the people. Almoſt half the country ſubſiſts on them in winter, boiled in ſoup, &c. and their horſes are generally fed with them. A horſe load of about three hundred pounds ſells commonly at 3 livres; in ſcarce years, at 4 livres; and ſuch a load is good food for a horſe fifteen days. At ſixty pounds to the buſhel, this is five buſhels, and 2s. 7½d. for that is 6½d. per buſhel of that weight. I made many inquiries how many loads on a journal, but

no ſuch thing as information tolerably to be depended on; I muſt therefore gueſs the preſent crop, by the examination I made of many, to amount to about three hundred buſhels, or three hundred and fifty per Engliſh acre. The common aſſertion, therefore, that a journal of parſnips is worth two of wheat, ſeems to be well founded. The ground is all digged a full ſpit deep for them; they are kept clean by hand-weeding very accurately, but are left, for want of hoeing, beyond all compariſon, too thick. They are reckoned the beſt of all foods for a horſe, and much exceeding oats; bullocks fatten quicker and better on them than on any other food; in ſhort, they are, for all ſorts of ſtock, the moſt valuable produce found on a farm. The ſoil is a rich deep friable ſandy loam.

Landernau to Breſt.—The culture of parſnips here declines much, but I ſaw a few pieces; one was weeding by five men, crawling on their knees. Fatten many horſes, by feeding them with cabbages and parſnips boiled together, and mixed with buckwheat-flour, and given warm. They have a great pride here in having fat horſes. Many other diſtricts in France, beſides Bretagne, poſſeſs the right ſoil for parſnips; and many more, beſides Flanders, that for carrots; but they are no where elſe articles of common culture. Parſnips are not cultivated in England; but carrots are in Suffolk, with great ſucceſs, and all the horſes in the maritime corner of that county fed with them. I have, in the *Annals of Agriculture*, given many details of their culture and uſes. Carrots ſucceed well on all dry ſoils that are ſix inches deep; but for large crops, the land ſhould be a foot deep, rich and dry. The extent of ſuch in France is very great, but this general profitable uſe not made of them.

Cabbages.

FLANDERS.—*Orchies to Lille.*—The kale, called here *choux de Vache*, is common through this country; it never cabbages, but yields a large produce of looſe reddiſh leaves, which the farmers give to their cows. The ſeed is ſown in April, and they are tranſplanted in June or July, on to well dunged land, in rows, generally two feet by one foot: I ſaw ſome fields of them, in which they were planted at greater diſtances. They are kept clean by hoeing. They are reckoned excellent food for cows; and the butter made from them is good, but not equal to that from carrots.

NORMANDIE.—*Granville to Avranches.*—In the gardens of the cottages, many cabbage trees five and ſix feet high.

BRETAGNE.—*St. Brieux.*—Many ſown here on good land, on wheat ſtubbles, for ſelling plants to all the gardens of the country, and to a diſtance. I do not ſee more than to the amount of a journal in one piece; which, in September, I muſt have done, had they poſſeſſed any cabbage culture, as repreſented to me, worth attention. They firſt clean, and then plough the wheat ſtubbles, and chop and break the ſurface of the three-feet ridges fine, and then ſow. The plants are now (September 7) about an inch high, and ſome only coming up.

Morlaix.—They have ſome crops that are much more productive than their turnips, but planted greatly too thick: they are given to cows and oxen.

ANJOU.—*Migniame.*—The *chou d'Anjou*, of which the Marquis de Turbilly ſpeaks, is not to be found at preſent in this country; they prefer the *chou de Poitou*, which is a ſort of kale, and produces larger crops of leaves than the *chou d'Anjou*. Monſ. Livonniere gave me me ſome ſeeds, but by miſtake, they proved a bad ſort of *rave*, and not comparable to our turnips, as I found by ſowing them at Bradfield.

ALSACE.—*Saverne to Wiltenheim.*—Many cabbages, but full of weeds.

Straſbourg.—Crops to a great weight, but only for four crout.

Scheleſtat.—The quantity increaſes between Benfeldt and Scheleſtat. Their culture is, to ſow the ſeed on a bed in March, covered with mats, like tobacco, and tranſplant in June, two thouſand to three thouſand plants on an arpent; they make a hole with a ſpade, which they fill with water, and then plant; they never horſe-hoe, yet the diſtance would admit it well. They are in ſize ten pounds or twelve pounds, and ſome twenty pounds; the hearts are for four-crout, but the leaves for cows. An arpent is worth 303 livres (20l. 15s. 10d. per Engliſh acre); but carriage to a town is to be deducted.

The culture of cabbages for cattle, is one of the moſt important objects in Engliſh agriculture; without which, large ſtocks of cattle or ſheep are not to be kept on ſoils improper for turnips. They are, in every reſpect but one, preferable to that root; the only inferiority is, that of cabbages demanding dung on all ſoils, whereas good land will yield turnips without manuring. Great attention ought to be paid to the full introduction of theſe two crops, without which we may venture to predict, that the agriculture of France will continue poor and unproductive, for want of its due ſtock of cattle and ſheep.

Clover.

Isle of France.—*Liancourt.*—Never cultivate it for its place in rotation, but merely for forage like lucerne; have a barbarous cuſtom of ſowing it without tillage on wheat ſtubbles, and it laſts ſo ſometimes two years.

Artois.—*Recouſſe.*—Monſ. Drinkbierre, a very intelligent farmer here, aſſured me, that clover exhauſted and ſpoiled the land, and that wheat after it was never ſo good as after a fallow; but as the clover is ſown with a ſecond, and even a third corn crop, no wonder therefore that it fouls land.

I could add many other notes on this ſubject, but will be content to mention, in general, that the introduction of clover, wherever I have met with it, has been commonly effected in ſuch a manner that very little benefit is to be expected from it. All good farmers in England know, from long experience, that the common red clover is no friend to clean farming, if ſown with a ſecond or third crop of corn. In the courſe, 1, turnips or cabbages; 2, barley or oats; 3, clover; 4, wheat: the land is kept in garden order. But if after that fourth crop, the farmer ſtirs on and ſows, 5, barley or oats; 6, clover; 7, wheat, the land will be both foul and exhauſted. In a word, clover is beneficial to the really good and clean farmer only to the extent of his turnips, cabbages, and fallow; and never ought to be ſown but on land previouſly cleaned by thoſe hoeing crops, or by fallow. As to fallow, no Frenchman ever makes it but for wheat, conſequently the culture of clover is excluded. I have often ſeen it ſown in this courſe; 1, fallow; 2, wheat; 3, barley; 4, oats; 5, clover; 6, clover; 7, wheat; 8, oats; and the land inevitably full of weeds. I may venture to aſſert, that clover thus introduced, or even in courſes leſs reprehenſible, but not correct, will do more miſchief than good, and that a country is better cultivated without than with it. Hence, therefore, let the men, emulous of the character of good farmers, conſider it as eſſential to good huſbandry to have no more clover than they have turnips and cabbages, or ſome other crop that anſwers the ſame end; and never to ſow it but with the firſt crop of corn; by theſe means their land will be clean, and they will reap the benefits of the culture without the common evils.

I have read in ſome authors, an account of great German farmers having ſuch immenſe quantities of clover, as are ſufficient to prove the utter impoſſibility of a due pre-

paration: theſe quantities are made a matter of boaſt. We know, however, in England, in what manner to appreciate ſuch extents of clover.

Cheſnuts.

BERRY.—*La Marche.*—Firſt meet with them on entering La Marche.

Boiſmandè.—They are ſpread over all the country; the fruit are ſold, according to the year, from 5*ſ.* to 10*ſ.* and 15*ſ.* the boiſeau, which meaſure will feed a man three days: they rub off the ſkin; boil them in water with ſome ſalt; ſqueeze them into a kind of paſte, which they dry by the fire; they commend this food as pleaſant and wholeſome. The ſmall ones are given to pigs, but will not fatten them ſo well as acorns, the bacon being ſoft; when fattened with acorns, they are finiſhed with a little corn. A cheſnut tree gives two boiſeau each of fruit on an average; a good one, five or ſix. The timber is excellent for building; I meaſured the area ſpread by many of them, and found it twenty five feet every way. Each tree, therefore, occupies ſix hundred and twenty five feet, and an acre fully planted would contain ſeventy; at two boiſeau each it is one hundred and forty, which, at 10*ſ.* is 2l. 18s. 4d. and as one of theſe meaſures will feed a man three days, an acre would ſupport a man four hundred and twenty days, or fourteen months. It muſt, however, be obvious, that land cannot be ſo exactly filled, and that an acre of land would not probably, in common, do for half that number.

La Villeaubrun.—They eat many cheſnuts, but do not live upon them, eating ſome bread alſo; in which mode of conſuming a boiſeau, it will laſt a man five or ſix days. Price as above.

LIMOUSIN.—*Limoges.*—Price 7*ſ.* to 15*ſ.* the boiſeau. This food, though general in the country, would not be ſufficient alone; the poor therefore eat ſome rye bread. The comfort of them to families is very great, for there is no limit in the conſumption, as of every thing elſe: the children eat them all day long, and in ſeaſons when there are no cheſnuts there is often great diſtreſs among the poor—The exact tranſcript of potatoes in Ireland. The method of cooking cheſnuts here, is to take off the outward ſkin, and to put a large quantity into a boiler, with a handful of ſalt, and very little water to yield ſteam; they cover it as cloſely as poſſible to keep in the ſteam; if much water is added they loſe their flavour and nouriſhing quality. An arpent under cheſnuts does not yield a product equal to a good arpent of corn, but more than a bad one.

To Magnac.—They are ſpread over all the arable fields.

QUERCY.—*Brive to Noailles.*—Ditto; but after Noailles there are no more.

Payrac.—Boil them for their food, as above deſcribed.

LANGUEDOC.—*Gange.*—Many in the mountains, and exceedingly fine cheſnut underwood.

POITOU.—*Ruffec.*—Yields a good crop, to the amount even of 10 livres for a good tree's produce. The poor people live on them. A meaſure of forty-five pounds has been ſold this year at 48*ſ.*

BRETAGNE.—*Pont Orſon.*—On entering this province, theſe trees immediately occur, for there are none on the Normandy ſide of the river, that parts the two provinces.

MAINE.—*La Fleche to Le Mans.*—Many cheſnuts, the produce chiefly ſold to towns; the poor people here not living on them with any regularity: three buſhels (each holding thirty pounds of wheat) are a good crop for one tree, and ſell at 40*ſ.* the buſhel; this is more than a mean produce, but not an extraordinary one. The number here is very great; and trees, but of a few years' growth, are well loaded.

VIVARAIS.

VIVARAIS.—*Pradelles to Thuytz.*—Immenſe quantities of theſe trees on the mountains; it is the greateſt cheſnut region I have ſeen in France. The poor people live on them boiled; and they ſell by meaſure, at the price of rye.

The huſbandry of ſpreading cheſnuts over arable lands muſt unqueſtionably be very bad; the corn muſt ſuffer greatly, and the plough be much impeded. It is as eaſy to have theſe trees upon graſs land, where they would be comparatively harmleſs: but the fact is here, as is ſo general in France, that they have no paſtures which the plough does not occupy by turns; all, except rich meadows, being arable. The fruit is ſo great a reſource for the poor, that planting theſe trees upon lands not capable of tillage by the plough, is a very conſiderable improvement; the mountains of the Vivarais thus are made productive in the beſt method perhaps that they admit.

Chicory.

ISLE OF FRANCE.—*Dugny.*—Monſ. Cretté de Paleuel, 1787, had this plant recommended to him by the Royal Society of Paris; in conſequence of which, he has made ſeveral very ſucceſsful experiments on it. He has had it two years under cultivation. The ſeed is ſown in March, twelve pounds per arpent (one hundred perches at eighteen feet) on one ploughing, and is harrowed in. It riſes ſo thick, as to cover the whole ground, and is mown the ſame year once; Monſ. Cretté has cut one piece twice the firſt year. The following winter he dunged it, at the rate of eight loads of three horſes per arpent. The year after, ſome was cut three times, and ſome four; and Monſ. Cretté remarks, that the oftener the better, becauſe more herbaceous and the ſtalks not ſo hard. He weighed the crop upon one piece, and found the weight, green,

	lb.
Of the firſt cutting,	55,000
ſecond,	18,000
third,	3,000
Per arpent,	76,000

By making ſome of it into hay, he found that it loſt three-fourths of its weight in drying, conſequently the arpent gave nineteen thouſand pounds of hay, or ten tons per Engliſh acre. It is ſo ſucculent and herbaceous a plant, as to dry with difficulty, if the weather be not very fine; but the hay, he thinks, is equal to that of clover, though inferior to meadow hay. He has uſed much in ſoiling, and with great ſucceſs, for horſes, cows, young cattle, and calves; finds it to be eaten greedily by all, and to give very good cream and butter. Monſ. Cretté's fine dairy of cows being in their ſtalls, he ordered them to be fed with it in my preſence; and they ate all that was given with great avidity. When in hay, it is moſt preferred by ſheep: cows do not in that ſtate eat the ſtalks ſo well as ſheep. A circumſtance which he conſiders as valuable, is its not being hurt by drought ſo much as moſt other plants; and he informs me, but not on his own experience, that it will laſt good ten years.

I viewed one of his crops, of ſeven or eight arpents, ſown laſt ſpring, and which has been mown once; I found it truly beautiful. He ſowed common clover and ſainfoin among it, and altogether it afforded a very fine fleece of herbage, about eight or nine inches high (October 28) which he intends feeding this autumn with his ſheep. He is of opinion that the ſainfoin will be quite ſuffocated, and that the chicory will get the better of the clover.

PROVENCE.—*Vaucluſe to Orgon.*—In a very fine watered meadow, one third of the herbage is this plant.

I liked the appearance of this plant ſo well in France, and was ſo perfectly ſatisfied with what I ſaw of it, cultivated by Monſ. Cretté de Paleuel, and growing ſpontaneouſly in the meadows, that I brought ſeed of it to England, and have cultivated it largely at Bradfield with ſuch ſucceſs, that I think it one of the beſt preſents France ever made to this kingdom. I ſow it with corn like clover; but it pays well for occupying the land entirely. It will prove, without doubt, a very valuable plant for laying land permanently to graſs; and alſo for introducing, in courſes of crops, when the land wants reſt for three, four, or five years. I am much miſtaken if we do not in a few years make a much greater progreſs in the culture of this plant than the French themſelves, from whom we borrowed it, will do.

Sheep are ſaid to be very fond of it *, a fact I have ſufficiently proved in Suffolk.—From a paſſage in an Italian author, who ſpeaks of ſowing the wild chicory, I am in doubt whether the French have the honour of being really the firſt introducers of this plant †.

Coleſeed.

FLANDERS.—*Cambray.*—Near this town, I met firſt with the culture of coleſeed: they call it *gozá.* Sow the ſeed thick on a ſeed-bed, for tranſplanting; ſetting it out on an oat ſtubble, after one ploughing. This is ſo great and ſtriking an improvement of our culture of the ſame plant, that it merits the utmoſt attention; for ſaving a whole year is an object of the firſt conſequence. The tranſplanting is not performed till October, and laſts all November, if no froſt; and at ſuch a ſeaſon there is no danger of the plants not ſucceeding: earlier would however ſurely be better, to enable them to be ſtronger rooted, to withſtand the ſpring froſts, which often deſtroy them; but the object is not to give their attention to this buſineſs till every thing that concerns wheat ſowing is over. The plants are large, and two feet long, a man makes the holes with a large dibble, like the potatoe one uſed on the Eſſex ſide of London, and men and women fix the plants, at eighteen inches by ten inches; ſome at a foot ſquare, for which they are paid 9 livres per manco of land. The culture is ſo common all the way to Valenciennes, that there are pieces of two, three, and four acres of ſeed bed, now cleared, or clearing for planting. The crop is reckoned very uncertain; ſometimes it pays nothing, but in a good year up to 300 livres the arpent (one hundred perches of twenty-four feet) or 8l. 15s. the Engliſh acre. They make the crop in July, and by manuring the land, get good wheat.

Valenciennes to Orchies.—This is a more valuable crop than wheat, if it ſucceeds, but it is very uncertain. All tranſplanted.

Lille.—The number of mills, near Lille, for beating coleſeed, is ſurpriſing, and proves the immenſe quantity of this plant that is cultivated in the neighbourhood. I counted ſixty at no great diſtance from each other.

Bailleul.—The quantity cultivated through this country immenſe; all tranſplanted; it occurs once in a courſe of ſix or ſeven years. Price of the cakes, 3½*d.* each; they are the ſame ſize as ours in England.

ARTOIS.—*St. Omers.*—Great ſtacks of coleſeed ſtraw all over the country (Auguſt 7th) bound in bundles, and therefore applied to uſe.

* *Phytographie Oeconomique de la Loraine*, Par M. Willemet. 1780. 8vo. p. 57.

† *Ronconi Dizionario D'Agricoltura o ſia La Coltivazione Italiana.* Tom. ii. p. 148.

I ſhould remark, in general, that I never met with coleſeed cultivated in any part of the kingdom merely for ſheep-feed; yet it is an object, ſo applied, of great conſequence, and would be particularly uſeful in France, where the operoſe cultures of turnips and cabbages will be long eſtabliſhing themſelves. With this view coleſeed ſhould be thus introduced:

1. Winter tares, ſown the beginning of September on a wheat ſtubble; mown for ſoiling: then the land ploughed and coleſeed harrowed in.
2. Barley, or oats.
3. Clover.
4. Wheat.

Fuller's Thiſtle.

ISLE OF FRANCE.—*Liancourt.*—Very profitable: has been known to amount to 300 livres or 400 livres the arpent (about 1¼ acre).

Furz.

GASCOIGNE.—*St. Palais to Anſpan.*—A practice in theſe mountainous waſtes, which deſerves attention, is their cutting furz when in bloſſom, and chopping them mixed with ſtraw for horſes, &c.; and they find that no food is more hearty or nouriſhing.

NORMANDIE.—*Vologne to Cherbourg.*—Throughout this country a ſcattering of furz ſown as a crop, with wheat or barley, as clover is uſually ſown: the third year they cut it to bruiſe for horſes; and every year afterwards: and it yields thus a produce of 40 livres the vergé, of ninety-ſix Engliſh perch.

BRETAGNE.—*St. Pol Leon.*—Through all this biſhopric the horſes are fed with it bruiſed, and it is well known to be a moſt nouriſhing food.

The practice here minuted is not abſolutely unknown in England; there are many traces of it in Wales, and ſome other parts of the kingdom. I have been aſſured that an acre, well and evenly ſeeded, and mown for horſes every year, has yielded an annual produce, worth, on a moderate eſtimate, 10l., but I never tried it, which was a great neglect, in Hertfordſhire, for I had there land that was proper for it.

Culture of Hemp and Flax.

PICARDIE.—*Montreuil to Picquigny.*—Small patches of flax all the way. At Picquigny, a good deal of land ploughing for hemp, to be ſown in a week. (May 22.)

QUERCY.—The hemp, in much of this province, is ſown every year on the ſame ſpots; and very often highly manured. This appears to be an erroneous ſyſtem, wherever the lands in general are good enough to yield it.

Cauſſade.—Vaſt quantities near this place, now (June 12.), two or three feet high.

LANGUEDOC.—*Monrejeau.*—Flax now (Auguſt 10.) graſſing.

Bagnere de Bigore to Lourd.—Never water their flax, only graſs it. I ſaw much with the graſs grown through it; if the land or weather be tolerable wet, three weeks are ſufficient.

GUIENNE.—*Port de Leyrac.*—This noble vale of the Garonne, which is one of the richeſt diſtricts of France, is alſo one of the moſt productive in hemp that is to be found in the kingdom.

Agen.—Hemp yields ten quintals per carterée, at 40 livres the quintal, *poid de table* (17l. 10s.), which carterée is ſown with two hundred and ſeventeen pounds of wheat. This is probably about 1¾ Engliſh acre.

Aguillon.—The hemp is every where watering in the Garonne; they do not leave it in more than three or four days.

Tonneins.—The whole country, from Aguillon to this place, is all under either hemp or wheat, with exception of ſome maiz; and its numerous population ſeems now employed on hemp.

La Morte Landron.—It yields ten to twelve quintals, at 36 livres to 45 livres the quintal.

Soissonois.—*Coucy.*—Hemp cultivated in the rich vales, in the courſe,—1. hemp; 2. wheat. It yields five hundred bottes, at 25 livres the hundred, reckoned on the foot before watering.

St. Amand.—The carterée of land, of one hundred verge of nineteen feet (thirty-ſix thouſand one hundred feet), under flax, has this year a very good crop, on account of the rainy weather; it has been ſold at 1200 livres, or very near the fee-ſimple of the land (55l. 11s. 3d. per Engliſh acre). This amazing value of flax made me deſirous of knowing if it depended on ſoil, or on management. Sir Richard Weſton, in the laſt century, who has been copied by many ſcores of writers ſince, ſpeaks of poor ſandy land as being the beſt for that flax of which the fine Bruſſels lace is made; conſequently this is made from land abundantly different from what produces the Valenciennes lace, if that aſſertion were ever true. The ſoil at St. Amand is a deep moiſt friable loamy clay, of vaſt fertility, and ſituated in a diſtrict where the greateſt poſſible uſe is made of manures; it therefore abounds very much with vegetable mould. Flax is ſown on the ſame land once in twelve to fifteen years; but in Auſtrian Flanders, once in ſeven or eight years. Advancing and repeating my enquiries, I was aſſured that flax had been raiſed to the amount of 2000 livres the carterée (92l. 15s. 6d. per Engliſh acre). The land is nearly the ſame as above deſcribed, and lets, when rented, at 36 livres the carterée (1l. 13s. 3d. per Engliſh acre). They ſow two *raziere* of ſeed, each holding fifty pounds of wheat per carterée; and a middling crop of good flax is from 3½ to four feet high, and extremely thick. They water it in ditches, ten, twelve, and fourteen days, according to the ſeaſon; the hotter the weather, the ſooner it is in a proper ſtate of putrefaction. After watering, they always graſs it in the common method.

Going on, and gleaning freſh information, I learned that 1200 livres may be eſteemed a great produce per carterée; the land all round, good and bad, of a whole farm, letting at 30 livres and ſelling at 1200 livres. Nothing can ſhew more attention than their cultivation: beſides weeding it with the greateſt care while young, they place poles, or forked ſtakes, amongſt it, when at a proper height, in order to prevent its being beaten to the ground by rain, from its own length and weight; without this precaution it would be flat down, even to rotting.

Orchies.—A carterée of flax, of forty thouſand feet, riſes to the value of 1500 livres, and even more (63l. 18s. 9d. per Engliſh acre). They ſow ſuch as is intended for fine thread, as ſoon as the froſts are over, which is in March; but ſuch as is for coarſer works, ſo late as May. Never ſeed their own flax, always uſing that of Riga. They prefer for it an oat-ſtubble that followed clover; and they manure for it in the winter preceding the ſowing. Wheat is, in general, better after flax than after hemp.

Lille.—Flax in common, is worth 90 livres the *centier*, or 360 livres the carterée (15l. 6s. 3d. per Engliſh acre): this is excluding uncommon crops.

ARTOIS.—*Lillers.*—Flax all through the country, and exceedingly fine. Sow wheat after it.

Bethune.—An arpent of good flax worth more than one of wheat; yet good wheat is worth 200 livres.

Beauval.—Flax ſometimes worth 500 livres the journal (25l. 17s. 11d. per Engliſh acre). Hemp does not equal it. They do not water flax here, only ſpread it on graſs or ſtubbles.

NORMANDY.—*Bolbec to Harfleur.* Flax not watered, but ſpread on ſtubble.

BRETAGNE.—Throughout this province, they every where cultivate flax in patches, by every family, for domeſtic employment.

Ancenis.—The culture of flax is generally, throughout the kingdom, as well as in the greateſt part of Europe, that of a ſpring crop; but here it is ſown in autumn. They are now working the wheat-ſtubbles on one ploughing, very fine, with a ſtout bident-hoe, and ſowing them; ſome is up. It is pulled in Auguſt, and wheat ſown after it.

ANJOU.—*Migniame.*—They have winter-ſown flax all over the country. The value of the crop exceeds that of wheat. They do not water, only graſs it; yet admit that watering makes it whiter and finer.

Turbilly.—Hemp is ſown in patches every where through the country; ſells at 8*ſ.* the pound raw; ſpun, at 26*ſ.* and 27*ſ.*; bleached, at 30*ſ.* to 36*ſ.* The crop is thirty to forty weights, each fifteen pounds or ſixteen pounds per journal, or about 210 livres.

MAINE.—*Gueſteland.*—Through all this country there is much hemp ſown every year, on the ſame ſpot; ſpun, and made by domeſtic fabrics, into cloth for home uſes. Spinning is 10*ſ.* the pound; and it is an uncommon ſpinner that can do a pound in a day; in common but half a pound.

LORAINE.—*Luneville.*—Hemp is cultivated every where in the province, on rich ſpots; hence there is much of it; and ſome villages have been known to make a thouſand crowns in a year of their thread and linen. If it is wiſhed that the hemp be very fine, they do not water, but only ſpread it on the graſs; but in general water it. Uſe their own ſeed, and furniſh much to their neighbours; but have that of flax from Flanders. Sow beans among flax for ſupporting it; others do this with ſmall boughs of trees. Some alſo ſow carrots among their flax; which practice, I ſuppoſe, they borrowed from Flanders. Hemp is always dunged; and always ſown on the ſame ſpots, which ſell at the ſame price as gardens; a common and execrable practice in France. A journal gives on good land, ninety-five pounds, and one hundred and three pounds of *toup*; price laſt year, ready for ſpinning, 16*ſ.* the pound; the *toup* 11*ſ.* now higher: alſo two *razeau* of ſeed (each one hundred and eighty pounds of wheat). The journal equals ſixty-five Engliſh perches.

ALSACE.—*Straſbourg.*—Product three quintals, at 27 livres the quintal, the arpent (5l. 12s. per Engliſh acre).

Scheleſtat.—Produce two quintals, ready for ſpinning, at 36 livres to 48 livres the quintal (5l. 16s. 3d. per Engliſh acre). Water it for cordage, but not for linen; graſs it only, as whiter.

AUVERGNE.—*Clermont.*—In the mountains; price of hemp, ready to ſpin, 15*ſ.* to 18*ſ.* the pound; ſpun, 24*ſ.*; fine, 30*ſ.*

Izoir.—Produce of hemp, per cartona, one hundred and fifty pounds rough, at 5*ſ.* the pound, which is one hundred and thirteen pounds ready for ſpinning; but bad hemp loſes more. The ſetérée is eight cartoni, of one hundred and fifty toiſes, or forty-three thouſand

thouſand two hundred feet. Hemp grounds ſell equally with gardens (11l. 11s. 6d. per Engliſh acre).

Briude.—Hemp yields a quintal raw, per cartona: female is worth 40 livres the quintal, male 30 livres; alſo eight coups of ſeed, at 6*s.* Average produce, 35 livres or 36 livres in all.

DAUPHINE'.—*Loriol.*—Chineſe hemp ſucceeds well with Monſieur Faujas de St. Fond, and perfects its ſeed, which it rarely does in the King's garden at Paris. He thinks it an error to ſow it, like other hemp, in the ſpring; for he is of opinion, that it would ſeed even in England, if ſown in Autumn. He has found by experiment, that it is excellent for length and ſtrength, if ſown thick enough to prevent its ſpreading laterally, and to make it riſe without branching.

PROVENCE.—*Marſeilles.*—Price of hemp; Riga, firſt quality, 36 livres the quintal; ditto, ſecond quality, 33 livres. Ancona, firſt quality, 33 livres; ditto, ſecond quality, 30 livres to 31 livres. Piedmont, three group, 26 livres; four group, 28 livres.

From theſe notes it appears, that hemp or flax is cultivated in ſmall quantities, through every part of France; generally for the uſes of domeſtic manufactures among the lower claſſes. A very intereſting political queſtion ariſes on thoſe diffuſed fabrics, and on which I ſhall offer a few obſervations under the chapter of manufactures.

Madder.

ALSACE.—*Straſbourg Fertenheim.*—Much of this plant is cultivated in various parts of Alſace, where the ſoil is very deep and rich, eſpecially on that which they call *limoneuſe*, from its having been depoſited by the river. They dig the land for it three feet deep, and manure highly: the rows are ſix to nine inches aſunder, and they hoe it clean thrice a ſummer. The produce of an arpent, of twenty-four thouſand feet, is forty quintals green, before drying, and the mean price 6 livres the quintal (16l. 12s. 6d. per Engliſh acre). Such is the account I received at Straſbourg; but I know enough of this plant by experience, to conclude, that ſuch a produce is abſolutely inadequate to the expences of the culture, and therefore the crop is probably larger than here ſtated; not that the low rate of labour ſhould be forgotten.

DAUPHINE'.—*Piere Latte.*—Planted here in beds; but it is very poor, and apparently in a ſoil not rich enough.

To *Orange.*—Much ditto; all on flat beds, with trenches between, but weedy and ill cultivated. The price is 27 livres the quintal dry. Some juſt planted, and the trenches very ſhallow: dig at three years old. Price 24 livres the quintal, dried in the ſun. The roots are ſmall and poor.

Avignon.—Price 24 livres to 30 livres; but there is no profit if it be under 50 livres. It is three years in the land. Sow wheat after it; but if it were not well dunged the crop is poor. A good deal on flat beds, eight feet wide, with trenches between, two broad and two deep, which are digged gradually for ſpreading on it.

Lille.—An eymena in three years gives five quintals, at 20 livres to 24 livres the quintal, but a few years ago was 50 livres to 70 livres. The expences are very high, 120 livres. At 4l. a cwt. which equals a French quintal, madder paid a proper profit for inducing many Engliſh cultivators to enter largely it; but falling to 40s. and 50s. per cwt. ſome were ruined, and the reſt immediately withdrew from it. But in France we find they carry on the culture; it is however weakly and poorly done;

done; with ſo little vigour, that common crops, well managed, would pay much better.

Maiz.

The notes I took on the ſubject of this noble plant were very numerous; but as there is reaſon to believe that its culture cannot be introduced, with any proſpect of advantage, in this iſland, I ſhall make but a few general obſervations on it.

In the paper on the climate of France, I have remarked, that this plant will not ſucceed in common cultivation, north of Luneville and Ruffec, in a line drawn diagonally acroſs the kingdom; from which intereſting fact we may conclude, that a conſiderable degree of heat is neceſſary to its profitable cultivation, and that all ideas of introducing it in England, except as a matter of curioſity, would be vain. It demands a rich ſoil or plenty of manure, and thrives beſt on a friable ſandy loam; but it is planted on all ſorts of ſoils, except poor gravels. I have ſeen it on ſands in Guienne, that were not rich, but none is found on the granite gravels of the Bourbonnois, though that province is ſituated within the maiz climate. The uſual culture is to give two or three ploughings to the land; ſometimes one ploughing, and one working with the heavy bident-hoe; and the ſeed is ſown in rows at two feet or two and a half, by one and a half or two; ſometimes in ſquares. Some I have ſeen near Bagnere de Bigore, in rows, at three feet, and eighteen inches from plant to plant. The quantity of ſeed in Bearn, is the eighth part, by meaſure, of the quantity of wheat ſown. It is univerſally kept clean by hoeing, in moſt diſtricts, with ſuch attention, as to form a feature in their huſbandry of capital merit. In Auguſt, they cut off all that part of the ſtalk and herbage which is above the ear, for feeding oxen, cows, &c. and it is perhaps the richeſt and moſt ſaccharine * provender that the climate of France affords: for wherever maiz is cultivated, no lean oxen are to be ſeen; all are in high order. The crop of grain is, on an average, double the quantity commonly reaped of wheat; about Navareen in Bearn, more than that; and there the price (1787) is 54*ſ.* to 55*ſ.* the meaſure, holding 36 pounds to 40 pounds of wheat; but in common years 18*ſ.* to 20*ſ.* Whether or not it exhauſts the land is a queſtion; I have been aſſured in Languedoc, that it does not; but near Lourde in Guienne, they think it exhauſts much. Every where the common management is to manure as highly as poſſible for it. In North America it is ſaid to exhauſt conſiderably †; Monſieur Parmentier contends for the contrary opinion ‡; wherever I found it, wheat ſucceeds it, which ought to imply that it is not an exhauſting crop. The people in all the maiz provinces live upon it, and find it by far more nouriſhing than any bread, that of wheat alone excepted. Near Brive, in Quercy, I was informed that they mix one-third rye, and two thirds maiz to make bread, and though yellow and heavy, they ſay it is very good food. A French writer ſays, that in Breſſe, maiz cakes coſt nine and two-thirds deniers the pound, but that a man eats double the quantity of what he does of bread made of wheat §. A late author contends, that it is to be claſſed among the moſt wholeſome articles of human food ‖.

* A real ſugar has been made from it. *Spec. de la Nature.* Vol. ii. p. 247.
† *Mitchel's Preſent State of Great Britain and N. America*, p. 157.
‡ *Memoire ſur le Mais*, 4to. 1785. p. 10.
§ *Obſervations ſur l'Agriculture*, par M. Varenne de Feuille, p. 91.
‖ *Inſtruction ſur la Culture & les Uſages des Mais.* 8vo. 1786. p. 30.

Every

Every one knows that it is much cultivated in North America; about Albany, in New York, it is ſaid to yield a hundred buſhels from two pecks of ſeed *; and that it ſhoots again after being killed by the froſt, even twice; that it withſtands the drought better than wheat *(this is queſtionable)*; does much better on looſe than on ſtiff ſoils, and not well at all on clay. In South Carolina it produces from ten to thirty-five buſhels per acre †. On the Miſſiſſippi two negroes made fifty barrels, each one hundred and fifty pounds ‡. In Kongo on the coaſt of Africa, it is ſaid to yield three crops a year §. According to another account, great care is taken to water it where the ſituation will admit ‖; this I have ſeen in the Pyrennees; but moſt of the maiz in France, even nineteen parts in twenty are never watered. About Douzenac, in the Limouſin, they ſow it thick to mow for ſoiling, and at Port St. Marie on the Garonne they do the ſame, after the harveſt of other grain, which is the moſt profitable, and indeed admirable huſbandry. This is the only purpoſe for which it can be cultivated in northern climates. It might be ſown in England the firſt week in June, and mown the end of Auguſt, time enough to catch a late crop of turnips, or as a preparation for wheat.

Muſtard.

ISLE OF FRANCE.—*Petiviers.*—At Denainville, near this place, I ſaw them mowing muſtard, in full bloſſom, to feed cows with.

ARTOIS.—*Lilliers.*—Much all the way to Bethune; ſow ſpring corn after it.

Orchards.

NORMANDIE.—*Falaiſe.*—Many apple and pear trees are ſcattered over the country. They never plant them on the beſt lands, as they are convinced that the damage to the corn, &c. is at leaſt equal to the value of the cyder; but on the poorer ſoils they conſider it as an improvement, forming a fourth, or third, and in ſome caſes even a half of the value of the land.

BRETAGNE.—*Doll.*—A cyder country; but reckon the trees at no real value beyond that of the land, for they ſpoil as much as they produce.

Rennes.—A common proportion is to plant thirty trees upon a journal (about five roods Engliſh,) which, if well preſerved will yield on an average five to ten barriques of cyder every year; and the mean price 12 livres the barrique, which is one hundred and twenty pots; this year good orchards give forty or fifty per journal, but they have produced none, or next to none, for four years paſt. The damage the trees do to the corn is ſo great, that, in common expreſſion, they ſay they get none. The cyder is made by the preſs, which is of the ſame kind as Jerſey, I ſuppoſe, brought from this country. The ground apples, and wheat or rye ſtraw in layers under the preſs, and reduced to ſuch a deſiccated ſtate that they will burn freely immediately out of the preſs.

LORAINE.—*Blamont to Sarcrn.*—The whole country ſpread with fruit trees, apples, pears, &c. from ten to forty rod aſunder.

AUVERGNE.—*Vaires.*—The valley of this place, ſituated in the Limagne, ſo famous in the volcanic hiſtory of France, is much noted for its fine apples, particularly the *rennet blanche*, the *rennet gris*, *calville*, and *apy*, all grafted on crab ſtocks.

* Kalm's Travels in North America. Vol. ii. p. 245. † Deſcription of South Carolina, 8vo. 1761. P. 9. ‡ Du Pratz Hiſtory of Louiſiana. Vol. i. p. 306.
§ Modern Univ. Hiſt. Vol. xvi. p. 25. ‖ Mem. de l'Acad. des Sciences. 1759. p. 471.

Olives

Olives.

ROUSSILLON.—*Bellegard to Perpignan.*—Reckoned to pay one livre each tree.

Pia.—The land under them fallowed every other year, and ſown with corn: they are pruned in the fallow year, yielding no fruit; a crop being only in the corn year.

LANGUEDOC.—*Narbonne.*—Olives pay, in general, 3 livres each tree per annum; ſome 5 livres. Many fields of them are planted in rows, at twelve yards by ten.

Beziers.—The trees on the farm that was Monſ. L'Abbé Rozier's, are ſeventeen yards by two.

Pinjean.—Some trees ſo large and fine are known to give eighty-four pound of oil in a year, at 10*ſ.* the pound, or 42 livres; but they reckon in common that good trees give 6 livres one with another; this epithet *good*, ſhews that the common average of all trees is much lower. In planting, if they mean to crop the land with corn in the common manner, that is one year in two, the other fallow, they put one hundred trees on eight ſeterées of land; but if they intend to have no corn at all, the ſame number on four ſeterés; under corn, the eight ſeterées yield forty ſeptiers of corn, each one hundred pound at 9 livres (7s. 10½d.) The ſeterée is about half an acre, as I conclude, from the beſt intelligence I could procure. This proportion is one hundred trees on four Engliſh acres, or twenty-five per acre: if they were all good, the produce in oil would be 150 livres, and of wheat 90 livres—in all 240 livres or 10l. 10s; the half only of which is annual produce, or 5l. 5s. which ſeems not to be any thing very great, even ſuppoſing the trees to be all good, which muſt be far from the fact.

Montpellier to Niſmes.—The trees are three rods aſunder, by one and a half; alſo two by one and a half; both among vines; alſo two ſquare; alſo one by one and a half.

Pont de Gard.—Planted at one rod and one and a half; their heads almoſt join. They are all pruned to flat round heads, the centre of the tree cut out, cup-faſhion; and theſe formal figures add to the uglineſs of the tree.

VINARAIS.—*Aubenas.*—In paſſing ſouth from Auvergne, here the firſt olives are met with.

DAUPHINE'.—*Picre Latte to Avignon.*—Many; but ſeven-eighths dead from the froſt, and many grubbing up.

PROVENCE.—*Aix.*—Land planted with olives ſells at 1000 livres the carterée, whilſt arable only 600 livres, but meadows watered 1200 livres. Clear profit of a carterée of olives, 40 livres, (21,600 feet, at 40 livres, it is 7l. 2s. 1d. per Engliſh acre.) Gathering the olives 40 livres 10*ſ.* the quintal: preſſing 2 livres: cultivation 18 livres the carterée: the wood pays the pruning.

Tour d'Aigues.—The olive, pomegranate, and other *hard* trees as they are called here, bear fruit only at the end of the branches; whence, they conceive, reſults the neceſſity of their being pruned every other year. Thirty years ago the common calculation of the produce, per olive, was 5*ſ.*; but now, the price being double, it may be ſuppoſed 10*ſ.*

Toulon.—They have great trees in this neighbourhood that are known to yield 20 livres to 30 livres a tree, when they give a crop, which is once in two years, and ſometimes once in three. Small trees yield 3 livres, 5 livres, and 6 livres each, and are much more profitable than mulberries, for which tree the ſoil is too dry and ſtoney. Olives

demand as great an expence in buildings, preſſes, coppers, backs, &c. as vines. Preſſing comes to 3 livres a barrel. Crop of a large tree, eight to ten pannaux. Olives, in Provence, never pruned into the hollow cup-form, which is ſo general in Languedoc: they appear here in their natural form.

Hyeres.—They produce conſiderably in twenty or thirty years, and ſome have been known to be a hundred years old. I ſaw, going to *Notre Dame*, ſome that reſiſted the froſt of 1709. A good tree of thirty years gives, when it bears, three pannaux of olives; the pannaux holds thirty pounds to thirty-two pounds of wheat, and the common price is 24*ſ.* the pannaux. They have great trees that give a mot or twenty pannaux, or 24 livres each tree. When fields planted with olives are bought, they are meaſured by the ſquare canne or toiſe; a canne of good land, well planted, 30*ſ.*; middling, 20*ſ.*; bad, 10*ſ*; but there are ſome that ſell to 60*ſ.*; conſequently a middling arpent is 900 livres.

Antibes.—The largeſt trees I have ſeen in France are between this place and the Var, as if the near approach to Italy marked a vegetation unknown in the reſt of the kingdom.

The culture of this tree is found in ſo ſmall a part of France, that the object is not of very great conſequence to the kingdom; one ſhould, however, remark, that in Provence, where the beſt oil in Europe is made, there might be twenty trees to one that is found there; whence we may conclude, that if it were ſo profitable a huſbandry, as ſome authors have repreſented, they would be multiplied more. The moſt important point is, their thriving upon rocky ſoils and declivities, impenetrable to the plough; in which ſpots too much encouragement cannot be given to their culture.

Oranges.

PROVENCE.—*Hyeres.*—This is, I believe, the only ſpot in France where oranges are met with in the open air: a proof that the climate is more temperate than Rouſſillon, which is more to the ſouth; the Pyrennees are between that province and the ſun; but Hyeres lies open to the ſea; ſo indeed does the coaſt of Languedoc; and ſo does Antibes; but there is a peculiarity of ſhelter at Hyeres, from the poſition of the mountains, that gives this place the advantage. I always, however, doubt whether experiments have been made with ſufficient attention, when theſe nice diſcriminations are pretended, that are ſo often taken on truſt without ſufficient trial. The dreadful froſt of laſt winter, which deſtroyed ſo many olives, attacked the oranges alſo, which were cut down in great numbers, or reduced to the mere trunk; moſt of them, however, have made conſiderable ſhoots, and will therefore recover.

The King's garden here, in the occupation of Monſ. Fine, produced laſt year 21,000 livres in oranges only, and the people that bought them made as much by the bargain; the other fruits yielded 700 livres or 800 livres; the extent of this garden is twelve arpents; this 1808 livres per arpent, beſides the profit (94l. 7s. 7d. per Engliſh acre.) A fine tree will produce one thouſand oranges, and the price is 20 livres to 25 livres the one thouſand for the beſt; 15 livres the middling; 10 livres the ſmall. There are trees here that have produced to the value of two louis each; and what is a more convincing proof of great profit, a ſmall one, of no more than ſeven or eight years, will yield to the value of 3 livres in a common year. They are planted from the nurſery at two or three years old, and at that age are ſold at 30*ſ.* each; and it is thought that the flowers, ſold for diſtilling, pay all the expences of cultivation; they muſt, however, be

planted on land capable of irrigation, for if water be not at command, the produce is ſmall.

Pomegranates.

PROVENCE.—*Hyeres.*—The hedges are full of them, and they are planted ſingly, and of ſmall growth: the largeſt fruit ſell at 3*ſ.* or 4*ſ.* each; middling, 1*ſ.*; little ones, one liard. A good tree, of ten or fifteen years, will give to the value of 2 livres or 3 livres a year.

Pines.

GASCOIGN.—*Bayonne.*—The great product of the immenſe range of waſte, as it is commonly called *landes*, is reſin: the *pinus maritimus* is regularly tapped, and yields a produce, with as much regularity as any other crop, in much better ſoils. I counted from fifty to eighty trees per acre, in ſome parts; but in others from ten to forty; thoſe with inciſions for the reſin are from nine to ſixteen inches diameter. Some good common oak on this ſand, twelve to fourteen inches diameter, but with bodies not longer than from eight to ten or twelve feet.

St. Vincent's.—Here pines are cut for reſin, at the age of fifteen to twenty years; the firſt year at about two feet from the ground, the ſecond to four feet, the third to ſix feet, and the fourth to eight or nine feet: and then they begin again at bottom, on another ſide of the tree, and continue thus for one hundred years: the annual value per annum in reſin, 4*ſ.* or 5*ſ.* When they yield no longer, they cut into good plank, not being ſpoiled by tapping. Much tar alſo is made, chiefly of the roots. Cork trees are barked once in ſeven years, and yield then about 15*ſ.* or about 2*ſ.* per annum. Men are appointed, each to a certain number of trees, to collect the reſin, with ſpoons, out of the notches, cut at the butt-end of the tree to receive it.

Dax.—Pines pay 4*ſ.* a year in reſin. Pine woods, with a good ſucceſſion of young ones; from one rod and a half to three aſunder.

Tartaſs.—Several perſons united in aſſerting that the pines give one with another 4*ſ.* to 5*ſ.* each, from fifteen to one hundred years old, and are then ſold on an average at 3 livres each; that taking the reſin was ſo far from ſpoiling the tree, that it was the better and cut into better planks. This ſurpriſing me, I ſought a carpenter and he confirmed it *. They added that an arpent of pines was worth more than an arpent of any other land in the country; more even than of vines: that it would ſell according to the trees from 500 livres to 1000 livres, while the incloſed and cultivated ſands would not yield more than 300 livres, or at moſt than 400 livres. The arpent I found by meaſuring a piece of two arpents, to be 3366 Engliſh yards (500 livres is 31l. 10s. per Engliſh acre).

St. Severe.—Paſs ſeveral incloſures of ſandy land, reſembling the adjoining waſtes, ſown with pines as a crop; they are now of various heights, and very thick. See ſome very good cheſnut underwood on a white ſand.

GUIENNE.—*Langon.*—Many of the props uſed for their vines here, are young pines, the thinnings of the new ſown ones; are ſold for 36 livres to 40 livres the thouſand, or twenty bundles, each fifty pines.

* M. Secondat makes the ſame obſervation, *Mem. ſur l'Hiſt. Nat. du Chene.* Folio. 1785. p. 35. The ſame aſſertion is made in *Mémoire ſur l'Utilité du Defrichement des Terres de Caſtelnaude-Medoc.* 4to. 1791. *Réponſe au Rapport*, p. 27.

Cubſac to Cavignac.—On the pooreſt lands ſow pines, which are not an unprofitable article of culture. At five years old they begin to thin them for vine props; and the ſmall branches are ſold in faggots. At fifteen years the produce is more conſiderable; and at twenty-five the beſt trees make boards for heading caſks. I ſaw a journal and half, the boards of which yielded 1200 livres. They ſow one hundred and thirty-five pound of wheat-ſeed on a journal. Several crops of ſown pines very thick.

BRETAGNE.—*Quimperley to L'Orient.*—Pines abound in this country, and ſeem to have ſown themſelves all around; but none are cut for reſin.

To Vannes.—Such a ſcattering of them, that I apprehend all this country was once pine land.

AUVERGNE.—*St. George.*—In the mountains, ſee immenſe pine planks laid by way of fences, not leſs than ſixty feet long, and two and two and a half broad.

Fix.—Dr. Coiffier has them in the mountains eighty feet high, and ten feet round.

PROVENCE.—*Cuges to Toulon.*—In the rocky mountains of this coaſt, there are pines, and ſuch as are of any ſize are cut for reſin; but they ſtand too thin to yield an acreable produce of any account.

Cavalero to Frejus.—The mountains here are covered chiefly with pines, and have a moſt neglected deſert appearance.

To Eſtrelles.—The ſame; and hacked and deſtroyed almoſt as badly as in the Pyrennees.

Pines are juſtly eſteemed a profitable crop for the landlord, for they yield a regular and certain revenue, at a very little charge; no repairs, and no loſſes by failure of tenants. But, in regard to the nation, pines, like moſt of the poor woods of France, ſhould be reckoned detrimental to the public intereſt, ſince a kingdom flouriſhes by groſs produce and not by rent.

Poppies.

ARTOIS.—*Lillers.*—Much cultivated for oil; they are called here *zuliette.* Get as good wheat after them as after coleſeed.

Aras.—Many here; they are reckoned to yield more money per arpent than wheat; equal to coleſeed; which, however, is a very uncertain crop.

LORAINE.—*Nancy to Luneville.*—Some fine pieces on a poor gravel.

ALSACE.—*Savern to Wiltenheim.*—Many poppies; ſome fine crops, and very clean.

Straſbourg.—Product three ſacks, at 24 livres per arpent, of twenty-four thouſand ſquare feet (4l. 19s. 9d. per Engliſh acre). Manure for them, and ſow wheat after.

Our ideas of the exhauſting quality of certain plants, are at preſent founded, I believe, but upon that half-information which is ſcarcely a degree above real ignorance. It is a common obſervation, that all plants whoſe ſeeds yield oil, are exhauſters of ſoil; an obſervation that has ariſen from the theory of oil being the food of plants. Experiments upon both have been ſo few and unſatisfactory, as to be utterly inſufficient for the foundation of any theory. Coleſeed, ſeeded in England, is almoſt generally made a preparation for wheat; ſo it is in France, and we here find the ſame effect with poppies. It can hardly be believed, that wheat, which demands land in heart as much as almoſt any other crop, ſhould be made to follow ſuch exhauſting plants as the theory of oil would make one believe theſe to be; it is the organization of the plant alone that converts the nouriſhment into oil; which, in one plant, turns it to a ſaccharine ſubſtance, and, in another, to an acid one; but the idea that plants are fed by oil, and that they exhauſt in proportion to their oil, is abſolutely condemned by the olive, which

yields more oil than any other plant, and yet thrives beſt on dry arid rocky ſoils, of abſolute poverty, as far as oil is concerned. We ſhall be wholly in the dark in this part of agriculture, treated as a ſcience, till experiments have been greatly multiplied.

Potatoes.

ANJOU.—*Angers to La Fleche.*—More than is common in France.

LORAINE.—*Pont a Mouſon*—Throughout all this part of Loraine there are more potatoes than I have ſeen any where in France; twelve acres were at once under the eye.

To Nancy.—Many cultivated through all this country, but degenerated, by being ſown too often on the ſame land; and for want of new ſorts. A journal yields twenty toulins, or about twenty-four buſhels Engliſh; and 2½ journals are equal to an arpent de France, which makes the acreable produce miſerable. Price now 3 livres the toulin; was only 25*ſ.*

Luneville.—More ſtill; they plant them, after one ploughing, in April: for ſeed, cut the large ones only; but ſell the ſmaller ones uncut. Always dung much. Every man that has a cow keeps the dung carefully for this crop; and ſuch as have no land plant on other people's, without paying rent, that being the preparation for wheat: the crop of that grain is, however, very moderate, for the potatoe *pumps* much, to uſe the French expreſſion,—*i. e.* exhauſts greatly. Poor light ſoils anſwer beſt for them, as they are found not to do on ſtrong land. Product per journal, thirty to fifty *raſaux*, which meaſure contains one hundred and eighty pounds of wheat. I found an exact journal, by ſtepping, to be one thouſand nine hundred and ſeventy-four Engliſh yards, or about ſixty-five rods. At forty *raſaux*, each three Engliſh buſhels, it is nearly about three hundred buſhels Engliſh per acre. The price is now 7 livres the *razal*, heaped; when low, 3 livres; and in common, 4 livres 10*ſ.* The culture increaſes much.

ALSACE.—*Savern to Wiltenheim.* Many, and good potatoes.

Straſbourg.—Produce of an arpent, of twenty-four thouſand feet, ſeventy-five ſacks to one hundred, at 36*ſ.* to 60*ſ.* (at 2½ livres, and ninety ſacks, it is 15*l.* 10*s.* 7*d.* per Engliſh acre.) Sow wheat after them, if manured, otherwiſe barley. In the mountains they pare and burn for them.

Scheleſtadt.—Produce fifty or ſixty ſacks, at 3 livres, but 4 livres or 5 livres ſometimes (fifty-five ſacks, at 3 livres, are 13*l.* 5*s.* 10*d.* per Engliſh acre.) In planting, they think the difference is nothing, whether they be ſet cut or whole. The people eat them much.

Befort.—The culture continues to this place.

FRANCHE COMPTE'.—*Beançon.*—And a ſcattering hither.

Orechamps.—Now loſe the culture entirely.

AUVERGNE.—*Villeneuve.*—In theſe mountains they are cultivated in ſmall quantities.

VELLAY.—*Le Puy to Pradelles.*—Ditto.

To Thuytz.—They are met with every where here.

DAUPHINE'.—*St. Fond.*—Many are cultivated throughout the whole country; all planted whole; if ſliced, in the common manner, they do not bear the drought ſo well. They are plagued with the curl.

Theſe mentions ſhew, that it is in very few of the French provinces where this uſeful root is commonly found; in all the other parts of the kingdom, on inquiring for them, I was told, that the people would not touch them: experiments have been made, in many

many places, by gentlemen with a view to introduce them for the poor, but no efforts could do it. The importance, however, would be infinite, for their uſe in a country in which famine makes its appearance almoſt periodically, ariſing from abſurd reſtrictions on the corn trade. If potatoes were regularly cultivated for cattle, they would be ready for the poor, in caſe of very high prices of wheat; and ſuch forced conſumption would accuſtom them gradually to this root; a practice in their domeſtic œconomy, which would prevent much miſery for want of bread. This object, like ſo many others, can only be effected by the exhibition of a large farm, highly ſtocked with cattle, by means of potatoes; and the benefit, in various ways, to the nation would make ſuch an exhibition exceedingly advantageous. But ſuch eſtabliſhments come not within the purview of princes or governments in this age: they muſt be enveloped in the miſt of ſcience, and well garniſhed with the academicians of capitals, or nothing can be effected.

Racine de Diſette.

ISLE OF FRANCE.—*Dugny.*—This plant, the *beta cycla altiſſima* of Linnæus, Monſ. Cretté de Paleuel has cultivated with attention: he has tried it by tranſplantation, as directed by Monſ. l'Abbé de Commerell; alſo by ſowing the ſeed broadcaſt where it remains; and likewiſe ſeed by ſeed, in ſquares of fifteen inches; and this laſt way he thinks is the beſt and moſt profitable. The common red beet, which he has in culture, he thinks yields a larger produce; but it does not yield ſo many leaves as the other, which is ſtripped thrice in the ſummer by the hand, an operation which may anſwer where labour is exceſſively cheap; but I have my doubts whether the value in England would equal the expence of gathering and carriage. Cows and hogs, Monſ. Cretté has found, will eat the roots readily, but he has made no trial on it in fattening oxen or feeding ſheep.

ALSACE.—*Scheleſtadt.*—The culture is common in this country: I viewed three arpents belonging to the maſter of the poſt, which were good and clean. They gather the leaves by hand for cows, and then return and gather again, and the roots are the beſt food for them in winter; they come to eight pounds and ten pounds, and are ſown and planted like tobacco.

Rice.

DAUPHINE'.—*Loriol.*—Sixty years ago the plain of Livron, one mile from Loriol, and half a league from St. Fond, more than a league long and a league broad, was all under rice, and ſucceeded well, but prohibited by the parliament, becauſe prejudicial to health.

Saffron.

ANGOUMOIS.—*Angouleme.*—The beſt land for this crop is reckoned that which is neither ſtrong nor ſtoney, but rich and well worked; plant the rows ſix inches aſunder, and two inches from plant to plant; ſow wheat over the planted land, and gather the ſaffron among the wheat; bloſſom at All-Saints, when they gather it. In a good year, and on good land, a journal yields three pounds, which ſells, when dear, at 30 livres per lb. but it is ſometimes at 16 livres: laſts two years in the ground, after which it is removed. They aſſert, that the culture would not anſwer at all if a farmer had to hire labour for it: all that is planted is by proprietors.

Tobacco.

FLANDERS.—Moſt farmers, between Lille and Montcaſſel, cultivate enough for their own uſe, which is now (November) drying under the eaves of their houſes.

ARTOIS.—*St. Omers.*—Some pieces of tobacco, in double rows, at eighteen inches and two feet intervals, well hoed.

Aire.—A crop is worth three times that of wheat on the ſame land, and at the ſame time prepares better for that grain than any thing.

ALSACE.—*Straſbourg.*—Much planted in all this rich vale, and kept very clean. Product eight to ten quintals per arpent of twenty-four thouſand feet, at 15 livres to 30 livres per quintal (nine, at 23 livres, is 14l. 6s. 2d. per Engliſh acre). Sow wheat after it; and the beſt wheat is after tobacco and poppies.

Benfeldt.—Great quantities here, and all as clean as a garden.

Scheleſtadt.—Produce ſix quintals to eight per arpent, at 16 livres the quintal (8l. 15s. 7d. per Engliſh acre). This they reckon the beſt crop they have for producing ready money, without waiting or trouble. There are peaſants that have to ſix hundred quintals. They always manure for it. They ſow it in March on a hot bed covered with mats; begin to plant in May, and continue it all June and the beginning of July, at eighteen inches or two feet ſquare, watering the plants in a dry ſeaſon. When two feet high, they cut off the tops to make the leaves ſpread. Their beſt wheat crops follow it.

Tobacco, as an object of cultivation, appears in theſe notes to very great advantage; and a reſpectable author, in France, declares, from information, that, inſtead of exhauſting the land, it improves it like artificial graſſes *; which ſeems to agree with my intelligence; yet the culture has been highly condemned by others. Mr. Jefferſon obſerves thus upon it: "it requires an extraordinary degree of heat, and ſtill more indiſpenſably an uncommon fertility of ſoil: it is a culture productive of infinite wretchedneſs: thoſe employed in it are in a continued ſtate of exertion, beyond the powers of nature to ſupport: little food of any kind is raiſed by them; ſo that the men and animals, on theſe farms, are badly fed, and the earth is rapidly impoveriſhed. The cultivation of wheat is the reverſe in every circumſtance: beſides cloathing the earth with herbage and preſerving its fertility, it feeds the labourers plentifully; requires from them only a moderate toil, except in the ſeaſon of harveſt; raiſes great numbers of animals for food and ſervice, and diffuſes plenty and happineſs among the whole. We find it eaſier to make an hundred buſhels of wheat than a thouſand weight of tobacco, and they are worth more when made †." This authority is reſpectable; but there are circumſtances in the paſſage which almoſt remove the dependence we are inclined to have on the author's judgment. The culture of wheat preſerving the fertility of the earth, and raiſing great numbers of animals! What can be meant by this? As to the exhauſting quality of wheat, which is ſufficient to reduce a ſoil almoſt to a *caput mortuum*, it is too well known, and too completely decided to allow any queſtion at this time of day; and how wheat is made to raiſe animals we muſt go to America to learn, for juſt the contrary is found here; the farms that raiſe moſt wheat have feweſt animals; and in France, huſbandry is at almoſt its loweſt pitch for want of animals, and becauſe wheat and rye are cultivated, as it were, to the exclu-

* *De l'Adminiſtration Provinciale par M. le Trone*, Tom. i. p. 267.
† *Notes on the State of Virginia*, p. 278.

ſion

ſion of other crops. Tobacco cannot demand an uncommon degree of heat, becauſe it has been cultivated on a thouſand acres of land ſucceſsfully in Scotland: and as to the demanding of too great exertions, the free hands of Europe voluntarily addict themſelves to the culture; which has nothing in it ſo laborious as reaping wheat. I take the American caſe to be this; ill huſbandry, not tobacco, exhauſted the land; they are now adopting wheat; and, if we may judge from the notions of the preceding quotation, that culture will, in a few years, give the finiſhing ſtroke to their lands; for thoſe who think that wheat does not exhauſt, will be free in often ſowing it, and they will not be long in finding out what the reſult will prove.

Monſ. Bolz, in Swiſſerland, ſays, that they are diſguſted with the culture of tobacco, becauſe it exhauſts their lands; half an arpent gave five to ſix quintals of * leaves. Eſtimated groſsly, this may be called a thouſand weight per acre, which Mr. Jefferſon compares with one hundred buſhels of wheat; a quantity that would demand in England, four acres of land to yield; and, as American crops do not yield in that proportion, it is one acre of tobacco being as expenſive as five or ſix of wheat, which ſurpaſſes comprehenſion.

The Straſbourg produce of nine quintals, in the notes above, equal 15 cwt. per Engliſh acre The Scheleſtat produce of ſeven quintals is about 12 cwt. per acre.

Dr. Mitchel, many years before Mr. Jefferſon, gave the ſame account of the exhauſting quality of tobacco †.

The cultivation is at preſent ſpreading rapidly into countries that promiſe to be able to ſupply the world. In 1765, it was begun to be cultivated in Mexico, and produced, in 1778, to the value of 800,000l. and in 1784, 1,200,000l. ‡

Turnips.

GUIENNE.—*Anſpan to Bayonne*—*Raves* are, in theſe waſte tracts at the roots of the Pyrennees, much cultivated; they manure for them by burning ſtraw, as deſcribed under the article manure; weed, and, as they told me, hoe them; and have ſome as large as a man's head. They are applied entirely to fattening oxen. Maize is ſown after them. The people here knew of the orders given by the King, for cultivating this plant, but I could not find they had had any effect. The practice obtained here before the two laſt ſevere years, which were the occaſion of their increaſing it, much more than any orders could do.

FLANDERS.—*Valenciennes to Orchies.*—Many fields of this root, but quite thick, though it was ſaid they have been hoed; theſe are all after-crops, ſown after corn.

NORMANDIE.—*Caen.*—In going to Bayeaux, many, both flouriſhing and clean, though too thick; but on inquiry, found them all for the market, and none for cattle or ſheep. I thought the colour of the leaf differed from our own, and got off my horſe more than once to examine them. They are the *raves* of the ſouth of France; the roots, which ought to have been of a good ſize, were carrot-ſhaped and ſmall.

BRETAGNE.—*Belle-Iſle to Morlaix.*—Here is an odd culture of raves amongſt buckwheat; ſown at the ſame time, and given to cows and oxen, but the quantity is very inconſiderable.

Morlaix.—Get their beſt turnips after flax, ſometimes to a very good ſize; but, for want of ſufficient thinning the crops, in general, very ſmall roots muſt be produced;

* *Mem. de la Societé Oeconomique de Berne.* 1763. Tom. i. p. 87.

† Preſent State of Britain and North America, 8vo. 1767. p. 149, 151.

‡ Bourgoanne's Travels in Spain, vol. i. p. 368.

yet

yet the leaves large, healthy, and vigorous. They ſow them alſo among buckwheat; but the product is trifling, and the uſe but momentary, as they plough the land for wheat.

ANJOU.—*Migniame.*—If one were to attend only to converſation, without going into the fields, a ſtranger would be perſuaded that the culture of turnips flouriſhed here: they actually give ſome, and cabbages too, to their cows, for every man has a ſcrap: but ſown quite thick, and the largeſt I ſaw not bigger than a gooſe egg; in general, not a fourth of that ſize; and the largeſt piece I ſaw was half an Engliſh acre. They have, in like manner, patches of a ſort of kale, which is the *chou de Poitou;* this is inſtead of the *chou d'Anjou*, of which the Marquis de Turbilly ſpeaks ſo much: and which is quite neglected in this country now, in favour of this Poitou cabbage, that is found to produce many more leaves. To me it however appears inferior to the *chou de Vache* of Flanders.

To La Fleche.—A ſcattering of miſerable *raves* all the way.

ALSACE.—*Scheleſtat to Colmar.*—Some ſcattered pieces, but in very bad order; and none hoed, which they ought to have been three weeks before I ſaw them.

AUVERGNE.—*Iſſoire.*—Raves are cultivated for cattle, but on ſo ſmall a ſcale, that they ſcarcely deſerve mention. They ſow them alſo among buckwheat, which is *drawn by hand, when in bloſſom, for forage*, and the raves left. No hoeing, but ſome are weeded.

Brioude.—Many raves, and cultivated for cattle: common to two pounds weight.

St. George's to Villeneuve.—Many raves, but miſerably poor things, and all weeds.

Perhaps the culture of turnips, as practiſed in England, is, of all others, the greateſt deſideratum in the tillage of France. To introduce it, is eſſential to their huſbandry; which will never flouriſh to any reſpectable extent, and upon a footing of improvement, till this material object be effected. The ſteps hitherto taken by government, the chief of which is diſtributing the ſeed, I have reaſon to believe failed entirely. I ſent to France, at the requeſt of the Count de Vergennes, above an hundred pounds worth of the ſeed; enough for a ſmall province. When I was at Paris, and in the right ſeaſon, I begged to be ſhewn ſome effects of that import, but it was all in vain. I was carried to various fields, ſown thick, and abſolutely neglected; too contemptible to demand a moment's attention. Not one acre of good turnips was produced by all that ſeed. It is with turnips, as in many other articles; a great and well cultivated Engliſh farm, of ſeven hundred or eight hundred acres, ſhould be eſtabliſhed on an indifferent ſoil; and two hundred acres of turnips cultivated upon it, and eaten on the land by ſheep, ſhould every year be exhibited: and a ſucceſſion of perſons educated on ſuch a farm, diſperſed over the kingdom, would do more to introduce the culture than all the meaſures yet attempted by government.

Walnuts.

BERRY.—*Verſon to Vatan.*—Many of theſe trees ſpread over the country which yield a regular revenue by oil.

QUERCY.—*Souillac.*—Walnut-oil cake the fineſt food of all for fattening oxen. They export pretty largely of this oil, the trees being every where.

ANGOUMOIS.—*Rignac.*—Walnuts ſpread over almoſt every field.

Ruffec.—A common tree yields a boiſſeau of nuts; ſold at 3 livres or 4 livres; but a good tree three boiſſeau. All for oil, which the people eat in ſoups, &c.

POITOU.—Many through all parts of the province, which I paſſed in croſſing it. Oil univerſally made from them. This year (1787) all were ſo frozen, that the crop will be

be very ſmall; ſometimes get ſixteen boiſſeau a tree, even to twenty boiſſeau; the boiſſeau ſells generally at 20*ſ.* There is, on an average, one tree to an acre. One tree gives five or ſix meaſures of nuts, and each meaſure makes ſomething more than a pint of oil, which ſells at 18*ſ.* or 20*ſ.*

ANJOU.—Acroſs this whole province they are found every where, but none through Bretagne.

ALSACE.—*Iſenheim.*—Great numbers ſpread all over the country; for oil.

BOURBONNOIS.—*Moulins.*—Some eſtates have a good many ſcattered trees; the oil ſells at 12*ſ.* the pound.

AUVERGNE.—*Clermont.*—Many in every part of the country; a prime tree will, in a good year, give twenty pounds and even thirty pounds of oil, one of ten years ſix pounds; common price 6*ſ.* per pound.

Lempde.—Here they finiſh; as we advance from this village, no more are met with.

Various Plants.

QUERCY.—*Brives.*—Figs we met with here for the firſt time; they are ſcattered over the vineyards, and wrapped up in mats, to preſerve them from the froſts.

Creiſſenſac.—*Gieyſe* much cultivated here; it is the *lathyrus ſetifolius.* Alſo *jaraſh*, the *vicia latharoides.* They ſow them both in September and the ſpring, which are generally uſed, mown green, for ſoiling.

Souillac.—They have no meadows in many diſtricts of this country, but ſupply the want by the above-mentioned plants, which are always uſed green. They do not anſwer equally in hay, as it is ſaid that the leaf falls off in drying.

Cahors.—Near this place meet with four new articles of cultivation; one a *vicia ſativa varietas;* another the *cicer arietinum;* the third the *ervum lens;* and the fourth the *lupinus albus.*

Cauſſade.—Here the *trifolium rubens* is cultivated, and continues through all the Pyrennees. On all theſe articles I muſt however obſerve, that they do not ſeem to equal, for ſoiling, the common winter-vetch, which we cultivate ſo much in England; nor lucern, ſo ſucceſsfully ſown in France.

GUIENNE.—*Triticum Repens.* Upon the banks of the Garonne I met women loaded with the roots of this plant, going to ſell it at market; and they informed me it was bought to feed horſes with. It is applied to the ſame uſe at Naples. It grows with great luxuriance at Caygan Solo, in latitude 7 *; and being the great plague of Engliſh huſbandry, may be called a univerſal grower. It ſeems, from a late account †, as if they cultivated it in the iſland of Nantucket, in America.

ISLE OF FRANCE.—*Dugny.*—Monſ. Dretté de Paleuel gave me ſome notes of experiments he had made on various plants, in drying them for hay.

The *epilobium anguſtifolium* makes hay that is readily eaten by ſheep, and loſes half in drying. They are very fond of the hay of the *ſpirea ulmaria*, the *lithum ſalicaria*, *thalictrum vulgaris*, *pucedanum ſilaus*, and *centaurea jacea;* all theſe loſe half, when made into hay; the *althæa officinalis* two-thirds. Monſ. Crette is of opinion, from his trials, that theſe plants may be very uſeful in cultivation, for hay. He found, at the ſame time, that an arpent of wet meadow gave thirteen thouſand two hundred pounds of green herbage, which loſt two-thirds in drying. An arpent of winter-vetches ſeventeen thouſand eight hundred pounds green.

* Foreſt's Voyage to New Guinea, p. 16.

† St. John's Letters of an American Farmer, 8vo. 1782. p. 207.

The common ſun-flower he has alſo cultivated; he plants it in rows, at two feet aſunder, and one foot from plant to plant; an arpent containing ſixteen thouſand two hundred plants; the leaves he gives to cows, the flowers may be uſed for dying; of the ſtems he makes vine props, or for French beans, and afterwards burns them; and of the ſeed he makes oil, which leaves a cake good for fattening cattle. Six perch of land, each of eighteen feet ſquare, has given him twenty-two boiſſeau of ſeed, the boiſſeau $\frac{1}{12}$ of the ſeptier, that contains two hundred and forty pounds of wheat; but the crop exhauſts the land exceedingly, and ſmall birds devour the ſeed greedily.

The ſame gentleman compared cabbages and potatoes, in alternate rows: an arpent gave (half the ground) ſixty-two ſeptiers of potatoes, which weighed fourteen thouſand eight hundred and eighty pounds; the cabbages on the ſame land, in number five thouſand four hundred, weighed twenty-five thouſand five hundred pounds.

Dammartin.—Summer-vetches cultivated here, they are mown for hay, and yield eight hundred to one thouſand bottes per arpent; one thouſand one hundred have been known.

ARTOIS.—*La Recouſſe.*—Winter-vetches are found on every farm, on the good land from Calais to St. Omer: oats are mixed, to keep them up; and every one ſoils his horſes in the ſtable.

Aſs.—Some hops here.

ANJOU.—In the way from Angers to La Fleche, the number of citroules is very great, even to acres, and the crop extremely abundant; the metayers feed their hogs with them.

AUVERGNE.—*Brioude.*—Jarouſſe every where ſown, the end of Auguſt or beginning of September, for hay.

DAUPHINE.—*Loriol.*—The *melilotus ſibyrica*, from Monſ. Thouin, at the King's garden at Paris, makes, in the garden of Monſ. Faujas de St. Fond, a moſt ſuperb figure; nobody can view its prodigious luxuriance without commending the thought of cultivating it for cattle. The *coronilla varia*, a common plant here, and of ſuch luxuriance, that it is hardly to be deſtroyed. The *hedyſarum coronarium* does well here.

PROVENCE.—*Cuges.*—Capers are here met with for the firſt time, in going from Marſeilles to Italy. It is a low buſh, planted in ſquares of about five or ſix feet. This year they yield nothing, becauſe damaged by the froſt; but, in common, more profitable than vines; they mentioned one pound per tree, at 30*ſ.*

Toulon.—Capers are not ſo profitable as vines. The buſhes here are planted at 6½ or ſeven feet ſquare; and a good one will give 1½ or two pounds of capers; but the price varies prodigiouſly, from 30 livres or 40 livres, to 120 livres the quintal; average 30 livres, or from 6*ſ.* to 20*ſ.* the pound.

Hieres *.—Capers are here planted in ſquares, at ſix, ſeven, and eight feet; each good buſhel yields two pounds from 6*ſ.* to 24*ſ.* the pound; but in a groſs eſtimate of a whole crop, are not ſuppoſed to pay more than 6*ſ.* to 10*ſ.* per buſhel.

Graſſe.—Here is one of the moſt ſingular cultures to be met with, that of plants for making perfumes; whole acres of roſes, tuberoſes, &c. for their flowers, and a ſtreet full of ſhops for ſelling them: they make the famous otter of roſes, as good and as clear as from Bengal; and it is ſaid now to ſupply all Europe.

LYONNOIS.—The fromental of the French (*avena elatior*) is cultivated in this part of France, and in ſome diſtricts of Franche Compté. The ſeed is commonly ſold by the

* The natural hiſtorian of Provence mentions a ſingular profit by this plant, at Hieres, of two hundred cannes ſquare giving 200 livres net, while the ſame breadth, in common huſbandry, only 18 livre. *Mem. pour ſervir a l'Hiſt. Nat. de la Provence*, par M. Bernard. 8vo. tom. i. p. 329.

ſeedſmen, at Lyons, of whom I bought ſome to cultivate in England. The firſt perſon who mentioned it publickly was, I believe, Monſ. Miroudot, who wrote an eſſay upon it, in which he fell into an error, copied by many of his countrymen *, namely, that of calling it the ray-graſs of the Engliſh. The great botaniſt, Haller, was miſtaken in ſuppoſing it the *avena flaveſcens* †. King Staniſlaus made ſome experiments on it in Loraine. In Bretagne ‡ it has been found to yield ten times the produce of common meadows. That it is very productive cannot be doubted, but it is a very coarſe graſs: however, it merits experiments, and ought to be tried upon a large ſcale, as the qualities of plants cannot be aſcertained upon a ſmall one.

Citroules, in this province and the neighbouring ones, are cultivated largely, and rarely fail. They may be preſerved until the beginning of January: oxen, cows, and hogs eat them freely; for lean cattle they are given raw, but commonly boiled for fattening: from ten pounds to twenty pounds a day, given to cows, ſoon ſhews the effect in the quality of milk. For fattening an ox, in Breſſe §, with them, they mix the citroule with bran or pollard, or flower of buckwheat, and boil them together, and give thirty-five pounds to forty pounds to each beaſt per diem. In ſome places they apply them to feeding carp. The poor people eat them in ſoup, in moſt parts of the kingdom, but not in great quantities.

CHAP. XXVI.—*Of the Waſte Lands of France*

SOLOGNE.—THERE is, in this province, ſuch a large mixture of waſte, even in the moſt cultivated parts, and cultivation itſelf is carried on upon ſuch barbarous principles, that there will not be much impropriety in conſidering the whole as waſte; to every ſpot of culture called a farm, a much greater proportion of rough ſheep-walk and wood (eaten down and deſtroyed) is annexed; ſo that any good farmer, who got poſſeſſion of one thouſand or one thouſand five hundred acres, would conclude the whole as waſte, and treat it accordingly: by much the moſt unproductive and pooreſt part of ſuch a tract would, in every caſe, be the lands at preſent under the plough. I may, in confirmation of this general idea, add, that there are many abſolute waſtes in France, that yield as good, and even a better produce than all Sologne, acre for acre. I know no region better adapted for a man's making a fortune by agriculture, than this; nothing is wanted but capital, for moſt of the province is already incloſed.

BERRY.—*Chateauroux.*—Leaving this place for the ſouth, enter vaſt heaths of ling and furz, but much mixed with trefoils and graſſes. Some ſmall parts of theſe heaths are broken up, and ſo ill ploughed, that the broom and furz are in full growth. After this another heath, of ſeveral miles extent, where the landlords will not give leave either to build or break up, reſerving the whole for ſheep, and yet not ſtocked; for the people aſſert, that they could keep twice the number, if they had them.

LIMOUSIN.—*To Limoges.*—The mountainous heaths and uncultivated lands are commons, and therefore every metayer ſends his ſheep in the common flock of the village.

BIGORE.—*Bagneres de Luchon.*—The waſte tracts of the Pyrennees, by which are to be underſtood, lands ſubject to common paſturage, are ſo much ſubject to the will of the communities, that theſe ſell them at pleaſure. Formerly the inhabitants appropri-

* *Bomarre Dict. d'Hiſt. Nat.* tom. ii. p. 565; v. p. 225.
† *Mem. de la Soc. de Berne.* 1770. p. 16.
‡ *Corps d'Obſerv. de la Soc. de Bretagne.* 1759, 1760. p. 44, 45.
§ *Obſerv. et Exp. par Fenille,* p. 86.

ated to their own uſe, by incloſure and cultivation, what portions they pleaſed; but this obtains no longer; at preſent the communities ſell theſe waſtes, and fixing a price on them, nearly to their value, new improvements are not ſo common as heretofore.

LANGUEDOC.—*Narbonne to Niſmes.*—This vale, which is by far the richeſt of Languedoc in productions, is of no conſiderable breadth, yet the quantity of waſte neglected land in it is very great.

Monrejau to Lann Maiſon.—Vaſt waſtes, covered with fern; the ſoil good; and land projecting into it cultivated to advantage.

Bagneres de Bigorre.—Theſe immenſe fern-waſtes continue for many miles, with many new improvements in them. They belong to the communities of the villages, which ſell portions of them to any perſons willing to buy. The price moſt common has been 20 livres the journal, of one hundred and twenty-eight cannes ſquare, the canne eight pans, the pan eight inches and four lines, four journals making an arpent. The method of improving has been, firſt to burn all the fern and rubbiſh, then to mattock it and ſow rye, which is pretty good; then oats for ſix, ſeven, or eight years, according to circumſtances; after that they ſummer-fallow and take wheat. Some they leave to graſs and weeds, after thoſe eight crops of oats; a detail of the huſbandry of barbarians! They have all a right of commonage on the waſtes, as long as theſe continue unincloſed; conſequently can keep cattle, and eſpecially ſheep, to any amount in ſummer; yet, in their incloſed improvements, they give not a thought to raiſe winter food! Such ſtupidity is deteſtable. The pariſh of Cavare has 104,000 arpents of theſe waſtes, without one metayer; all are peaſant proprietors, who buy morſels as it ſuits them. The improvements are exempted from tithes for ten years, but not at all from King's taxes, which is ſhameful.

BEARN.—*Pau to Moneins.*—Vaſt waſtes of rich ſoil, covered with an immenſe product of fern, to the amount of five or ſix waggon loads an acre.

St. Palais to Anſpan.—Vaſt waſtes, belonging to the communities of the pariſhes, that ſell them to whoever will buy: a common price 120 livres per arpent; but after they are brought into culture, they ſell for at leaſt 300 livres. The advantages of this ſyſtem, which extends through the whole region of the Pyrennees, is prodigious: it excludes the rights of commonage, becauſe all is encloſed as faſt as bought; and enables every induſtrious man, that has ſaved a little money, to become a land proprietor, which is the greateſt encouragement to an active induſtry the world can produce; it has, however, one evil, that of too great a population.

Bayonne to St. Vincents.—In this line I came firſt to the *landes* of Bourdeaux, becauſe they extend from the gates of Bayonne to thoſe of Bourdeaux, and of which I had read ſo much, that I was curious to view and examine them; they are ſaid to contain 1,100,000 arpents *. They are covered with pines, cork-trees (only half the value of pines), broom, whins, ling, and furz; the ſoil ſand, but the growth of trees ſhews a moiſt bottom. There is a good deal of cultivation mixed with the waſte this firſt ſtage. There is much land alſo under water, a ſort of ſandy fen. Paſs a great ſpace, without trees, covered with dwarf furz, ling, and fern. Others before Dax; one of them of five or ſix miles long, by two or three broad: much rough graſs and ling on it: but none of theſe tracts appear half ſtocked.

Dax to Tartas.—This diſtrict is a deep white ſand, the whole of which has evidently been *lande*, but part of it incloſed and improved; much is, however, yet rough.—Singular ſcene of a blowing ſand, white as ſnow, yet oaks growing in it two feet diameter; but a broken ground diſcovers a bed of white adheſive earth, like marl, which explains the wonder.

* *De la Neceſſité d'occuper tous les gros Ouvriers*, p. 8.

Learn at Tartas, that theſe immenſe waſtes, the *landes*, without pines or wood, are to be purchaſed, at all times very cheap indeed, of the King, the great lords, and of the communities of many pariſhes, even ſo low as 3 livres per arpent, with an exemption from tithes, and from taxes for twenty years. But every one here reckons them ſo bad, that all the money ſpent would be ſure to be loſt; yet it is admitted that there is a bed of marl or clay under all the country. This opinion is chiefly founded on the attempts of Monſ. Rollier, of Bourdeaux, having made a trial of cultivating them, and ſucceeded very ill. I gueſſed how ſuch improvements had been attempted, and told my informants what I ſuppoſed had been done; and my gueſs proved exactly right: corn—corn—corn—corn; and then the land pronounced good for nothing It does not ſignify telling ſuch people, that the great objects in all improvements of waſtes, are cattle, and ſheep, and graſs, after which corn will be ſure. Nothing of this kind is comprehended from one end of France to the other.

As I ſhall here take my leave of theſe *landes*, I may obſerve, that ſo far as they are covered with pines, they are not to be eſteemed waſtes; but, on the contrary, occupied with a very profitable culture, that does not yield leſs than from 15s. to 25s. an acre annual revenue. Of the very extenſive tracts not ſo employed, and which are to be purchaſed at ſo cheap a rate, they are among the moſt improveable diſtricts in the kingdom, and might be made, at a very ſmall expence, capable of ſupporting immenſe flocks of ſheep.

Cavignac to Pierre Brune.—Many ſandy waſtes, with white marle under the whole.

To Cherſac.—Great waſtes, of many miles extent, covered with fern, ling, and ſhrubby oak; all greatly improveable.

To Montlieu—Ditto. Many of theſe waſtes belonged to the Prince of Soubiſe, who would not ſell but only let them; the conſequence has been, that no improvements have been wrought.

La Graule.—The waſtes in this country are ſold at 10 livres the journal, and leſs; ſome better at 30 livres. The journal here is to the Engliſh acre as ten to thirty-eight; it conſiſts of ten carraux, each eighteen feet ſquare.

NORMANDIE.—*Valogne to Cherbourg.*—Monſ. Doumerc, of Paris, having bought of Monſieur, the King's brother, three thouſand arpents, part of fourteen thouſand ſold at the ſame time, being parcel of an ancient but much neglected foreſt, has made an improvement here, which ſo far deſerves attention, as it ſhews the principles on which the French improvers proceed. He has brought into culture ſeven hundred verges, which form his preſent farm, around a houſe for himſelf, and another for his bailiff, all built, as well as many other edifices, in much too expenſive a manner; for theſe erections alone coſt 2500 louis d'or. Such unneceſſary expenditures in building is generally ſure to cripple the progreſs in much more neceſſary matters. The firſt buſineſs in the improvement, was to grub up the wood; then to pare and burn; and manure with lime, burnt with the furz, fern, and heath of the land; the ſtone was brought from Valogne: as ſoon as it was cleared, it was fallowed the firſt year for wheat. Such infatuation is hardly credible! A man, in commencing his operations in the midſt of three thouſand acres of rough ground, and an immenſe paſturage for cattle and ſheep, begins with wheat; the ſame follies prevail every where: we have ſeen juſt the ſame courſe purſued in England, and preſcribed by writers. Such people think cattle and ſheep of no importance at the beginning of theſe improvements. This wheat, limed at the rate per arpent, of ſeven or eight tonneaux, of twenty-five boiſſeau, each eighteen pots of two pints; four boiſſeau of ſeed ſown, and the crop forty boiſſeau. After this wheat ſown,

five

five boiſſeau of oats, the crop forty. Then barley, ſeed four boiſſeau, produce twenty to twenty-five boiſſeau. With this barley clover ſown; mown the firſt year twice, and paſtured the ſecond; being then ploughed for wheat, which is inferior to the original crops; then oats and fallow again. From all theſe crops it is ſufficiently evident, that French farmers eſteem corn, and not cattle, the proper ſupport of a new improvement. The ſoil which has been thus reclaimed is on a ſtone quarry in general; a friable ſandy loam, covered with a ſtrong ſpontaneous growth (where not foreſt) of furz, fern, and in ſome places, heath; mixed with much graſs, and even clover and *millefolium;* which, if properly ſtocked by cattle, well fed in winter, would be of conſiderable value in its preſent rough ſtate.

Though the methods purſued have not been calculated on the beſt principles, yet there is certainly a conſiderable degree of merit in the undertaking. Laſt year's crop of wheat produced forty thouſand gerbs; and this year (1787) there is one piece of oats, of eighty verges, which gives twelve thouſand gerbs, at fifteen boiſſeau per hundred; each boiſſeau forty pounds, and the price at preſent 45*ſ.* The preſent ſtock, two hundred and ſeven wethers, ten horſes, twenty-one working oxen, ten cows, one bull, ſix young cattle, are certainly fine, for a ſpot where, ten years ago, Monſieur Baillio, the bailiff, who has executed the whole, and who ſeems to be a truly excellent man, was in a hovel, with no other ſtock than a dog. The whole improved would now let at 15 livres the verge, 2½ to the arpent.

BRETAGNE.—*Combourg to Hédé.*—Paſs an immenſe waſte for a league, but to the left a dead level, boundleſs as the ſea; high lands at one part, ſeemingly eight or ten leagues off. Every part which the road paſſes has been under the plough, for the ridges are as diſtinct as if made but laſt year; and many ruined banks of hedges croſs it in various ways. The ſpontaneous growth, furz, ling, and fern; the ſoil good, and equal to valuable crops, in a proper management. The king has part, Monſieur Chateaubriant part, and other ſeigneurs alſo; but every body I talked with ſays, it is good for nothing. Would to heaven I had one thouſand acres of it at Bradfield! I would ſoon put that aſſertion to the teſt.

Rennes.—The waſte lands, which, in almoſt every part of the province, extend for many leagues, are almoſt every where to be bought, in any quantity, of the ſeigneurs, at 10*ſ.* the journal, which is to the Engliſh acre as 47 to 38, with a ſmall quit-rent per annum.

St. Brieux.—Inquiring here into the period of the cultivation which I every where remarked on the *landes* of Bretagne, I was told, that it was no ancient culture, but common for peaſants, who took them of the ſeigneurs, to pare and burn, with the *ecoubou*; exhauſt, and then leave them to nature; and this for forty, fifty, and ſixty years back. Rented for ever at 20*ſ.* to 30*ſ.* the journal.

St. Nazaire to *Savanal.*—Immenſe bog marked on all the maps of Bretagne, and filling the ſpace of many leagues, covered with vaſt growth of bog myrtle, and coarſe graſſes, three or four feet high; what a field for improvement, in a climate that gives ſuch a ſpontaneous growth!

To *Nantes.*—In the *landes*, which, ſtrange to ſay, extend to within three miles of Nantes, there was an improvement attempted ſome years ago; four good houſes of ſtone and ſlate are built, and a few acres run to wretched graſs, which have been tilled but all ſavage, and become almoſt as rough as the reſt; a few of the banks have been planted. This may be the improvement I heard of afterwards at Nantes, made by ſome Engliſhmen at the expence of a gentleman, and all the parties ruined. I inquired how the improvement had been effected: pare and burn; wheat; rye; oats!!!

Thus

Thus it is for ever; the ſame methods, the ſame failures, the ſame folly, and the ſame madneſs. When will men be wiſe enough to know that good graſs muſt be had, if corn is the object.

Nantes.—I have now travelled round the vaſt province of Bretagne, and may obſerve, that ſo large a proportion of it is waſte, as to be difficult to calculate; I have paſſed tracts of land, of three, four, five, and even eight miles in extent, without any cultivation, and I have heard of much more conſiderable, even to fourteen leagues in length. I have marked one diſtrict in the map, which contains ſome hundred thouſand acres. Three-fourths of the province are either waſte, or ſo rough as to be nearly the ſame thing. This is the more ſurpriſing, as here are ſome of the firſt markets in France; that is to ſay, ſome of the moſt conſiderable commercial towns; and every where the vicinity of the ſea. Theſe enormous waſtes, which are ſaid to exceed two millions of arpents *, are found, as I have remarked, in my notes on the great road, within four miles of ſuch a city as Nantes: vaſt diſtricts are to be had on leaſes, or rather property for ever, on the payment of very ſlight fines. The ſoil is generally very improveable, I mean convertible to cultivation, at a very ſmall expence, and with great facility; contrary to the aſſertion of every body in the province, who have been ſo uſed to ſee it deſolate, that they cannot readily believe it capable of a better huſbandry than being burnt, exhauſted, and left to nature. The means of improving theſe waſtes are abſolutely unknown in France, and not much better underſtood in England. The profit of the undertaking, however, when properly purſued, upon the never-failing principle of graſs—ſheep—cattle—corn; inſtead of the common blunder, which puts the cart before the horſe (if I may uſe a vulgar proverb), will be found great and rapid.

ANJOU.—*Turbilly.*—In the journal part of this work, I have explained the motives which carried me out of my road, to view the waſtes of this vicinity, and particularly the improvements of the late Marquis of Turbilly, deſcribed at large in his *Memoire ſur les Defrichemens*, which has been ſo often cited in almoſt every language.

The immenſe heaths, or *landes*, are in general a ſandy or gravelly loam; ſome on a gravel, others on a clayey, and others on a marley bottom, and others again, on imperfect quarry ones: the ſpontaneous growth would predominantly be every where foreſt, particularly of oak, if it were incloſed, and preſerved from depredation. At preſent, it is wood browſed and ruined, fern, furz, broom, ling, &c. &c. In the deſert ſtate in which the whole country is left at preſent, the value is nothing elſe but what it yields to a few cattle and ſheep; not the hundredth part of what might be kept, if any well regulated proviſion were made for their winter ſupport. I paſſed ten miles over theſe heaths; they were, in ſome directions, boundleſs to the view, and my guide aſſured me, I might continue travelling upon them for many days. When at Tours, I was told of their extending much in that direction alſo. The climate is good. There are many ſtreams that paſs through theſe waſtes, which might be employed in irrigation, but no uſe whatever made of them; there are marl and clay under them for manure, and there is every where to be found plenty of paſturage, for the immediate ſummer food of large flocks.—In a word, there are all the materials for making a conſiderable fortune—except ſkill and knowledge.

Such was the country in which the late Marquis of Turbilly ſat down, at an early period of life, determining to improve his eſtate of three thouſand arpents in theſe deſerts; with all the neceſſary activity of diſpoſition; every energy of mind; and that animated love of laudable attempts, to give life and efficacy to the undertaking. Some meadows

* *De la Neceſſité d'occuper tous les gros Ouvriers*, par Monſ. Boncerf. 1789. p. 8.

and

and plantations, which he made, ſucceeded well, and remain; but, of all his improvements of the heaths, to the inconſiderable amount of about one hundred arpents, hardly any other traces are now to be ſeen, except from the more miſerable and worn-out appearance of the land; which, after cropping, was of courſe left in a much worſe condition than if it had never been touched. The fences are quite deſtroyed, and the whole as much *lande* as before improvement. This flowed from the unfortunate error, ſo common, indeed ſo univerſal, among the improvers of waſte lands, and unexceptionably ſo in France—that of improving merely for the purpoſe of getting corn. Pyron, the labourer who worked in all the Marquis's improvements, informed me, that he pared and burnt, which is the common practice of all the country, and then took three crops of corn in ſucceſſion; that the firſt was very good, the ſecond not good, and the third good for nothing, that is, not above three times the ſeed: from that moment there was an end of improvement, it only crawled, during many years, to the amount of one hundred acres, whereas, if he had begun on right principles, he would in all probability have improved the three thouſand; and others copying his modes, the whole country might by this time have been under cultivation. It was reckoned a vaſt effort in him to fold two hundred and fifty ſheep, and this was the beſt engine he had in his hands, but giving the fold for corn, it was loſt as ſoon as exerted. Inſtead of two hundred and fifty ſheep, the Marquis ſhould have had five hundred the firſt year, one thouſand the ſecond, one thouſand five hundred the third, and two thouſand the fourth; and all his paring, burning, manuring, folding, exerted to raiſe turnips (not their contemptible *raves*) to winter-feed them; with ſo much burning, folding, and eating off the turnips, the land would have been prepared for graſs, and when once you have good graſs, good corn is at your command. Thus corn was the laſt idea that ſhould have entered his head: inſtead of which, like other French improvers, he ruſhed upon it at once—and from that inſtant all was ruined.

The particular advantages of the ſpot are conſiderable, if ever an improver ſhould ariſe, with knowledge enough to purſue the methods that are adapted to the ſoil and ſituation. The hills of all the country are ſo gentle, that they are to be tilled with great eaſe, offering the advantage of perennial ſtreams, that run at preſent to waſte in the vales. There are rich veins of white marl, with an under-ſtratum, in many places, of clay. There is a hill of ſhell-ſand, for improving the ſtiffer ſoils and the moory bottoms. There is lime-ſtone at the diſtance of half a league, and plenty of peat to burn it. The Marquis of Galway's father ſpread ſome of the ſhell-ſand on a ſmall poor field, and had an immediate luxuriance of crop in conſequence. The preſent curé of the pariſh has tried the marl with equal ſucceſs. But both theſe manures, and indeed any other, would be abſolutely loſt, if a ſucceſſion of corn crops were immediately to follow. It is this valuable under-ſtratum of clay and marl which gives ſuch a growth to wood. In paſſing from La Fleche to Turbilly, I was amazed, in ſome ſpots, at the contraſt between the apparent poverty of the ſurface ſoil, and the oaks ſcattered about it; they are in general eaten up by cattle, yet the bark is clean and bright, and this year's ſhoots four and even five feet long. A common mode, and indeed the only one of attempting improvements here, is to permit the peaſants to pare and burn pieces of the heath, to take five crops in ſucceſſion, but to leave the ſtraw of the laſt, to fence the piece around, and to ſow whatever ſeeds of wood the landlord provides, uſually oak, for a copſe, which in this villainous way ſucceeds well; but as ſuch copſes are fenced with a ditch and bank only, and never any hedge planted, they are preſently open and eaten.

MAINE.—*Gueſſelard.*—The *landes* of Anjou extend over a great part of Maine alſo.—Here they told me, that the extent in that neighbourhood is hardly leſs than ſixty

leagues

leagues in circumference with no great interruption of cultivation. The account they give of the ſoil is, that it is abſolutely good for nothing but to produce wood, which it will do very well. The ſeigneurs fief it out for ever, in any quantity, at the rent of half a buſhel of oats an arpent (the buſhel thirty pound of wheat), and ſome at 10*ſ.* to 20*ſ.* The peaſants pare and burn, and get a very fine crop of rye, then another poor crop of rye, and after that a miſerable one of oats; reckoning in common that a burning will give juſt three crops; after which the land is ſtrictly good for nothing, but is left to nature to recover itſelf. The price of paring and burning 30 livres per arpent. I can hardly record theſe inſtances of barbariſm with tolerable patience without dealing execrations, not againſt a poor unenlightened peaſantry, but againſt a government poſſeſſing in demeſne immenſe tracts of theſe lands, without ever ordering any experiments to be made and publiſhed, of the beſt methods of improving them. But had it come into any ſuch project, and had thoſe experiments had French conductors, they would have been merely with a view of getting corn! corn! corn!

To Le Mans.—Much of theſe waſtes here reſemble the ſands of Sologne; upon a dead level, and water ſtanding in many places; yet the ſoil a ſand; and in ſpots even a running one: it ariſes from the ſame circumſtance which makes them productive of oak timber, wherever preſerved, viz. the bottom of clay and marl.

Bourbonnois.—*Moulins.*—Three-fourths of the whole province waſte, or heath, or broom, or wood.

St. Pourçain.—As I quitted the Bourbonnois in this vicinity, entering Auvergne, it will not be improper to remark, that the whole province, as well as that of Nevernois, ought, reſpecting all the purpoſes of improvement, to be deemed waſte. The culture that is carried on, without any exception, on the arable lands, is only fallowing for rye; and, after two or three rounds, the land is ſo exhauſted by this bleſſed ſyſtem, that it is left to weeds: broom is the prevalent ſpontaneous growth in ſuch a caſe; and if the broom be left for a number of years it becomes a foreſt. This rye-courſe produces the landlord for his half (as all is in the hands of metayers) about 2s. 6d. or 3s. an acre through the whole farm, by corn, cattle, &c.; and at ſuch rates a vaſt proportion of the province is chiefly to be bought. Conſidering that the lands are all incloſed; that wood enough is every where found; that the country is furniſhed with a ſufficient quantity of buildings; that the roads are excellent; that it enjoys a navigation to the capital; that markets are good and prices high; that there is marl or clay under the ſands and ſandy gravels; that the climate is one of the fineſt in Europe; and the country highly pleaſant and beautiful: when all theſe circumſtances are well weighed, it will be admitted that no part of France is ſo eligible to eſtabliſh a great and profitable improvement; but, as I muſt again repeat it, the whole province appears waſte to the eyes of an Engliſh farmer.

Auvergne.—*Brioude.*—The mountains in this neighbourhood too much cultivated; the earth is, by ſuch means, waſhed away by ſtorms, and torrents drive away every thing.

Vivarais.—*Pradelles.*—Pare and burn old turf in theſe mountains. Great tracts burnt, exhauſted, and left to nature to recruit.

To Thuytz.—Cultivation is carried on in theſe mountains to an incredible height; and is all by hand. In ſome caſes earth is carried by hand in baſkets, to form the terraced beds that yield a difficult and ſcanty crop, that is brought away on the back. Nothing could poſſibly ſupport ſuch exertions but the whole being ſmall properties; every peaſant cultivates his own land.

PROVENCE.—*Tour d'Aigues.*—The mountains here are all calcareous, yet they are, from a vicious culture and management, deſtroyed and abandoned, and yield ſubſiſtence to a few miſerable goats and ſheep only; ſuch mountains in the Vivarais, the Preſident remarks, are covered with ſuperb cheſnuts, that yield a good revenue;—this country would do equally well for them, as appears from the very fine ones found in the park of Tour d'Aigues. The cutting of every buſh for burning the earth is the cauſe; this ſpecies of culture looſens the ſurface, and renders it a prey to torrents; ſo that all is waſhed into the rivers, and becomes the deſtruction of the plains. The Durance, in its whole courſe of near 200 miles, has deſtroyed on an average to the breadth of half a league.

General Obſervations.

In the preceding notes mention is made of great tracts of country ſo miſerably cultivated, that the whole would by a good Engliſh farmer be conſidered as waſte. This is particularly the caſe in Bretagne, Maine, Anjou, Sologne, Bourbonnois, &c.; and it is this circumſtance which reduces the general average product of France to ſo low a pitch, as appears in the chapter which treats of it, notwithſtanding the immenſe tract of twenty-eight millions of rich land, the products of which are of courſe very high. Here then ought to be the great effort of a new ſyſtem of government in France. The revolution has coſt immenſe ſums; and has occaſioned a happy defalcation of the revenue, provided it be replaced wiſely and equally on ſome object of general conſumption, and not on land: but the public burthens of the kingdom are ſo heavy (proportioned to its conſumption and circulation) that every attention ſhould be exerted to increaſe and improve the contributing income; and this can in no way and by no methods be effected ſo well and ſo eaſily as by ſpreading improvements over theſe immenſe waſtes, which are ſuch a diſgrace to the old government. The waſtes alone are calculated in theſe ſheets at 18,000,000 of Engliſh acres; if to theſe we add the tracts in the above mentioned provinces, which, though cultivated, are no more productive than waſtes, and much of them not of equal profit, we cannot reckon for the whole leſs than 40,000,000 of acres that are in a waſte ſtate; not abſolutely unproductive, but which would admit of being rendered four, five, ſix, and even ten times more ſo than they are at preſent. This extent is nearly equal to that of the kingdom of England; whence we may judge of the immenſe reſources to be found in the improvement of the agriculture of France; and the wiſdom of the meaſures of the National Aſſembly ought to be eſtimated in proportion to their exertions in this reſpect rather than in any other. If they give a ready, immediate, and abſolute right of incloſure; an exemption from all taxation whatever, for twenty-one years; and by a wiſe ſyſtem of impoſts, the future proſpect of not being too much burthened; if ſuch be their encouragements in addition to the great ones already effected, particularly in the abolition of tythes, they may expect to ſee in a few years great undertakings on theſe deſolate tracts. But the policy of a good government will not, in this point, do the whole; it may encourage buildings, incloſures, manuring, and the inveſtment of large capitals; but if theſe ſoils be attempted to be cultivated, as they have hitherto always been in France, failure, bankruptcy, and ruin will be the conſequence, and the lands after a few years left in a worſe ſtate than they are in at preſent. The government ſhould therefore not omit taking the neceſſary ſteps to have inſtructions well diffuſed for the cultivation of theſe immenſe tracts of country; not in the ſpirit of the old

old * ſyſtem, by printing memoirs, which, if followed, probably would ſpread more miſchief than benefit, but by the exhibition of a farm in each conſiderable diſtrict, under a right management, and in that degree of perfection of culture which is applicable to the practice of all mankind, of the poor farmers as well as of rich ones; every other ſpecies of perfection does well enough for gentlemen to commend, but is not adapted for farmers to imitate. One large farm taken entirely from waſte in Bretagne, another in Anjou, a third in Sologne, a fourth in Bourbonnois, and a fifth in Guienne, would be ſufficient. If theſe farms were cultivated on right practical principles, on thoſe of utterly diſregarding corn till the ample ſupport of ſheep and cattle (but particularly the former) in winter, by means of green crops, and in ſummer by graſſes, gave ſuch a command and facility of action, that whatever corn was then ſown, would in its produce be worthy of the ſoil and climate of France, yielding ten for one on theſe waſtes, inſtead of five or ſix for one, the preſent average of cultivated lands in that kingdom. If this were done, I ſay, the profit of ſuch improvements would be equally great and durable; the practice exhibited would take deep root in the reſpective provinces; and extenſive and ſpeedy improvements would be the conſequence. By ſuch a policy, the National Aſſembly would prove themſelves genuine patriots; the kingdom would flouriſh; population, which at preſent is a burthen, would be rendered uſeful, becauſe happy; and the conſumption and circulation of theſe provinces increaſing, would give a ſpur to thoſe of the whole ſociety; the weight of taxes would leſſen as the baſis enlarged that ſupported it: —in a word, every good effect would flow from ſuch undertakings, if properly executed, that can add to the maſs of national proſperity, and conſequently the moſt worthy the attention of an enlightened legiſlature †.

Attempts have been made to improve theſe waſtes, but always with ill ſucceſs; I ſaw a neglected farm gone back nearly to its priſtine ſtate, not far from Nantes; the Marquis of Turbilly's in Anjou had no better ſucceſs; and equal failures attended thoſe that were tried on the heaths of Bourdeaux; and I heard of ſome others, ſimilar undertakings in different parts of the kingdom; but in general they were all equally unſucceſsful; and no wonder, for all were conducted on the ſame plan, with no other object in view than corn; but this is the leaſt important of the products, as it hath been obſerved, that ſhould be found on new improvements. A French writer ‡, who ſpeaks from

* The edict exempting new improvements from taxation was in the right ſpirit. We are informed by Monſ. Necker, that, from 1766 to 1784, no leſs than 950,000 arpents were declared *defrichés*. *De L'Adminiſt. des. Fin.* 8vo. T. iii. p. 233. There can be no doubt but the greater part of theſe are long ſince abandoned again to nature. I never met with a ſingle perſon in France who had half an idea of improving waſte lands; and I may add that of all other practices in the agriculture of England, this is the leaſt underſtood. See my "Obſervations on the preſent State of Waſte Lands." 8vo. In regard to the excellent edict above-mentioned, there occurs a proof of the groſs and conſummate ignorance one meets with ſo often in France on all agricultural ſubjects. In the *Cahier du Tiers Etat de Troyes*, p. 38, they demand the abrogation of this edict as prejudicial to the nouriſhment and multiplication of cattle. Even the nobility of *Cambray, Cahier*, p. 19, are againſt cultivating commons. The nobility of *Pont-á Mouſſon, Cahier*, p. 38, declare, that the encouragement of incloſures and *défrichemens* is prejudicial to agriculture; ſhame on their folly! The clergy are wiſer, for they demand that the poſſeſſors of waſtes ſhall either cultivate them themſelves, or let others that are willing on reaſonable terms. *Cahier de Melun & Moret*, p. 22; and that all commons ſhall be alienable for the proſperity of agriculture. *Bayonne*, Art. 51. And ſome of the *Tiers Etat* alſo; all commons to be divided. *Cotentin MS.* And new *défrichémens* to be exempted from all taxes for twenty years. *Nimes*, p. 19. *La Rochelle*, Art. 17. *MS.*

† At preſent (Auguſt 1793) we know what the blood-hound government of France have done for agriculture: COMPLETELY *ruined* all that was good in it.

‡ Experiences and Obſervations *ſur les Défrichemens*. Par Monſ. le Doſſeur. *Lamballe*. 1775. 4to. p. 26, 28, 33. This gentleman tells us that paring and burning ſhould be practiſed only on a calcareous

from experience, as well as the Marquis of Turbilly, preſcribes this courſe; 1, dig, at the expence of 20 livres per arpent of 46,000 feet, in winter, and ſummer-fallow, with many ploughings and harrowings, for — 2, wheat — 3, oats — 4, fallow — 5, wheat — 6, oats, &c. &c. This gentleman, who tells us he broke up and *improved* four hundred and fifty arpents, has not explained how *real* improvement is to be made without ſheep or cattle. Where is his winter food in this prepoſterous courſe? If theſe four hundred and fifty arpents be really improved, they have coſt him five times more than they are worth; but I ſuſpect they are—improved *a la Turbilly*. It is mere romance to think of improving waſtes profitably without a great flock of ſheep. The ideas of French improvers ſeem rooted in a contrary ſpirit; to the preſent moment, there is no other plan than the old one of corn. A publication of the year 1791, *Memoire ſur l'Utilité du Défrichement des Terres de Caſtlenau de Medoc*, ſpeaks of the ſame methods—*déraciner—labourer—herſer—enſemencer—froment—ſeigle*, p. 5. The ſame views in every part of the kingdom; but when you inquire for cattle, you have, on ſome hundreds of acres, ſeven cows, three mares, four oxen, and no ſheep! (p. 4.)

As the ſubject is one of the moſt eſſential in French agriculture, I will very briefly ſketch the right principles on which alone waſte countries can be improved to profit. The rapid view which is practicable for a traveller to take, will allow no more than an outline; fully to explain the proceſs would demand a diſtinct treatiſe.——1. The buildings, upon which ſo much money is generally ſo uſeleſsly employed, ſhould, in a private undertaking, be adapted to that ſized farm, which lets in the country moſt advantageouſly; but in a public undertaking, they ſhould be adapted to that ſized farm which is moſt favourable to a beneficial cultivation of the ſoil; in the latter caſe from four hundred to ſix hundred acres. This attention to the ſcale of the buildings flows from the plan of the improvement, which is that of letting the land in farms, as faſt as it is well improved and brought into the cultivation, in which it ought afterwards to remain. But whatever the ſize of the future farms may be, the ſtricteſt attention ought to be had to keeping this part of the expenditure as low as poſſible, it contributes little to the productiveneſs of the land, except what ariſes from convenient offices for cattle and ſheep.—2. The next object is to buy a large flock of ſheep, to feed on the lands in their waſte ſtate, that are to be improved; five hundred would be a proper number to begin with. Theſe ſheep ſhould be, as nearly as poſſible, ſuch as the South Downs of England; of the French breeds, the moſt profitable, and the beſt to procure, would be thoſe of Rouſſillon. It is of more conſequence to have a breed not too large, and well clothed with a ſhort firm fleece, than larger or more expenſive breeds.—3. The firſt ſummer ſhould be entirely employed in paring and burning, and cultivating at leaſt one hundred acres of turnips and rape, for the winter ſupport of the ſheep and plough oxen. After the turnip ſeaſon is paſt, the paring and burning to continue for rye, artificial graſſes to be ſown with rye.— 4. Begin, as early in the ſpring as poſſible to pare and burn freſh waſte, firſt for a crop of potatoes, on fifteen or twenty acres, and then for two hundred acres of turnips. The turnip land of laſt year to be ſown with oats, on three ploughings; and

---

ſoil, for in Bretagne the peaſants get but two or three crops of corn by it; and if more, much dung is requiſite. But if they can have two crops of corn, cannot they have one crop of turnips? Cannot they have GRASS, which ſeems never to be in his contemplation, though almoſt the only thing that ought to be in view. De Serres knew better, he recommends paring and burning, deſcribes the operation, and anſwers the objection of thoſe who urged a ſhorter continuance of the pront, by ſhewing, that ſuch caſes proceed from improper management, and do not occur, if the laws of good tillage be purſued, *au cultiver & au repoſer*. Le Théatre D'Agriculture, par D'Olivier de Serres, 4to. 1629. p. 64 to 70.

with

with the oats, over fifty acres, clover-ſeed to be ſown. After the turnip ſeaſon is paſt, continue paring and burning for rye, as before. The labourers employed in the ſummer on paring and burning, to work in the winter on ditching, for forming incloſures; the banks to be planted with white thorn, and willows for making hurdles. This is ſufficient to ſtate the leading principles of the undertaking. Œconomy in the execution demands that the labourers employed ſhould have work conſtantly; in ſummer paring and burning, and managing the hay and corn harveſt; and in winter ditching, quarrying, if there be lime-ſtone on the premiſes, for burning lime for manure, and if not, digging and filling marl, or chalk, or other manures which may be found under the ſurface. In like manner the number of maſons and carpenters ſhould be ſo regulated, in proportion to the works, ſo as to find conſtant employment through the building ſeaſon.

The courſes of crops will explain the whole buſineſs of tillage. On the land pared and burnt, and planted with potatoes in the ſpring, the following rotation: 1, potatoes—2, oats—3, turnips—4, oats, and graſs ſeeds for laying down.

On the land pared and burnt, and ſown with turnips at midſummer: 1, turnips—2, oats—3, turnips—4, oats or barley, and graſs ſeeds for laying down.

On the land pared and burnt, and ſown with rye in autumn: 1, rye—2, turnips—3, oats—4, turnips—5, oats, and graſs ſeeds for laying down.

All the turnips to be fed on the land with ſheep, by hurdling, except the ſmall quantity that would be wanted for the plough oxen.

All the graſſes to be mown the firſt year for hay, and then paſtured by ſheep, for two, three, four, or more years, according to circumſtances. When they wear out, or betray indications of a want of renewal, they may be broken up with a certainty of yielding grain in plenty, but no two crops of white corn ever to be ſown in ſucceſſion: by white corn is underſtood wheat, rye, barley, and oats.

A very eaſy, and, in ſome caſes, effectual method of improving heaths, is by grubbing up the plants that grow ſpontaneouſly, and ſpreading lime upon the waſte without any tillage, ſowing graſs ſeeds and covering them by the ſheep-fold: it is ſurpriſing what a change is thus effected at the ſmalleſt poſſible expence; ſoils apparently miſerable, have been made at once worth the rent of 20s. per acre.

It is not poſſible to give more than an outline in ſuch a ſketch as this; variations, ariſing from a difference of ſoil, will occur, which, though not conſiderable, muſt be marked with care, or uſeleſs expences will often be incurred. The method juſt hinted at is particularly applicable upon thoſe waſtes, which are in culture ſterile, from abounding with the vitriolic acid; the caſe of many in Bretagne; where pudding ſtone is found in ſome diſtricts at ſix to eight inches under the ſurface: cultivation on ſuch by the plough may be ſo tedious and expenſive, that the mere paring and burning, and application of calcareous manure, lime or marl, with graſs ſeeds and fold, as above-mentioned, would be much the beſt improvement, as I have myſelf experienced in a country more vitriolic and ſterile than any waſtes I ſaw in Bretagne.

The progreſs of the flock of ſheep will, by its procreation, ſhew what may be the given progreſs of ſuch an improvement, providing turnips in the proportion of one acre to five ſheep, which will allow enough for oxen and other cattle, and ſuppoſing the loſſes upon a flock to be five per cent.

If the breed of ſheep be good, all the ewes ſhould be ſaved for increaſing ſtock, and the weathers ſhould be kept until two years old and paſt, ſold fat at from two to three years. On ſuch a plan a flock increaſes rapidly, perhaps more ſo than the capital employed. But the conductor of ſuch an undertaking would of courſe proportion his flock to his money, ſo that all the works might be conſtantly going on, without ſtop or

break; to effect which, would demand no inconſiderable foreſight and knowledge of the buſineſs.

By the plan of letting the lands, as ſoon as brought into complete cultivation, the capital employed in the undertaking would be exerted to the utmoſt force and advantage in ſpreading the improvement over the greateſt poſſible breadth of waſte. If the lands were all to be kept accumulating into one farm, it would grow too vaſt to be managed with profit; but, by letting, the principal attention, exertion, and force of capital would be always employed where moſt wanted and moſt uſeful; and it is hardly to be believed by thoſe not accuſtomed to ſuch obſervations and inquiries, how great a tract of country might, in twenty years, be improved.

Planting colonies of foreigners upon waſtes, has been a favourite method purſued in ſeveral countries, particularly in Spain and in Ruſſia; ſuch ſpeculations have rarely anſwered the immenſe expences beſtowed upon them. The lands are uſually but half improved; the huſbandry introduced is almoſt ſure to be bad; and the jealouſy with which the new ſettlers are viewed by the natives, prevents their practice from ever being imitated. Such a mode of improvement as is here ſketched would be infinitely more beneficial; what was done would be well done, all would be executed by natives, for the only foreigner employed in the buſineſs ſhould be the director. There would be no probability of the improvement not being durable and ſpreading widely, for the lands not being let until the cultivation was completely in train, the profit as well as the method would be ſeen by every one.

By executing the improvement of a waſte on theſe principles, ten thouſand pounds would have an infinitely greater effect than an hundred thouſand expended in any other method: in the German colonies, eſtabliſhed in the Siera Morena in Spain, and in various others in different parts of Europe, much attention has been paid to the eſtabliſhing of little farms only. I do not want to view ſuch, to know that the improvement is beggarly, and the huſbandry contemptible: no waſte can be really improved, and to the beſt advantage, but by means of the ſheep, powerfully applied; all other methods are coſtly, ſlow, and of weak effect; but no little farmer can have a ſtock ſufficient. This paltry idea, of eſtabliſhing nothing but little farms, is the reſult of moſt impolitical ideas reſpecting population, which ought never to be the object of a moment's attention. If it exiſt idle, or beyond the proportion of employment, it is the ſource of poverty and wretchedneſs; it is valuable only in proportion to regular and active employment; find that employment, and you will have an induſtrious active population in ſpite of every obſtacle. But ſmall farms and little diviſible properties, increaſing the people without increaſing employment, has no other tendency than to propagate idle beggars, and to diſſeminate modes of huſbandry calculated to exhauſt the land, and keep its cultivators in miſery. This is not theory but fact, of which almoſt every province in France abounds with glaring inſtances. But of this more in another chapter.

There is another ſort of waſte land, that abounds alſo very much in France, I mean marſhes: it is aſſerted, that there are from 1,200,000 to 1,500,000 * arpents of them in France. The improvement of theſe is vaſtly more expenſive and more difficult than that of *landes*, heaths, moors, &c. The drains demanded for them require a conſiderable capital. Theſe ought to be converted to meadow and rich paſture, by means of draining. Where they admit it, the cheapeſt improvement of ſuch is by irrigation; the general drainage of great marſhes, if not truſted by the aſſemblies of the departments to

* *Rapport du Comité d'Agriculture, &c.* 7 Fev. 1790, par M. de Lamerville, deputé de Berri, p. 3. *De la Neceſſité d'occuper tous les gros Ouvriers*, 1798, par M. Boncerf. p. 3.

the

the conduct of ſome one able director, ſhould be done by commiſſion; by conſtituting a company as in England, and paying the expence by a tax on the lands drained. If the rage for ſmall farms continue, theſe marſhes, in proportion as the ſoil is boggy, will admit of being divided into ſmall portions, that is of thirty to ſixty arpents, but it ſhould be under an abſolute prohibition of the plough. The bog, which I ſaw in paſſing from Auvergnac to Nantes, and which ſeems from its appearance on the map of Bretagne, to be of a vaſt extent, is highly ſuſceptible of improvement, and every acre of it might be converted into rich meadow.

CHAP. XXVII.—*Of Coals in France.*

LIMOUSIN.—*Limoges.*—I was here aſſured that a vein of coal has been found at the depth only of twelve yards, which is ſeventeen feet thick, but it is no where uſed, either in houſes or in manufactures; the iron forges are all worked with charcoal. If this is fact, what a want of capital it proves!

FLANDERS.—*Valenciennes.*—There are mines worked here. The manco of two hundred and forty pounds ſells for 23*ſ.* 9 den. and the worſt of all at 12½*ſ.*; the largeſt of all at 35*ſ.* and 36*ſ.*; they are more abundant at Mons. Wood is burnt here at the inns, and all the better private houſes, but the poor burn coal: the mines they ſay, are ſeven hundred feet deep; the coal is drawn up by four horſes; they have four ſteam engines.

Lille.—Coals, the raziere, 3 livres.

Dunkirk.—Engliſh, the raziere of three hundred pound, 8 livres. Theſe are burnt in every houſe in the town, and are one-third cheaper than wood: there is a canal to to the coal pits at Valenciennes, but the diſtance too great, and locks too numerous and expenſive to rival the import from England.

Bethune.—Pits within a few leagues. Price here 44*ſ.* to 46*ſ.* the raziere, which, I have been told, holds about nine Engliſh pecks, but the raziere of St. Omers holds one hundred and ninety-five pounds of wheat.

Rouen.—The boiſſeau of twenty-two pots, each two bottles, 3 livres 10*ſ.*

Iſigny.—A mine newly opened, at which the coals fell at 14*ſ.* 1 liard the boiſſeau of ninety pounds to one hundred pounds.

Carentan.—Coals of the country only for blackſmiths, 14*ſ.* the boiſſeau of eighty pounds dry at the mine, but wet are ninety pounds or one hundred pounds: they are not half ſo good as what is brought from England.

Cherbourg.—In the manufacture of blown plate glaſs, a great quantity of Newcaſtle coal is burnt; thirteen keel, or one hundred and three chaldrons coſt, all Engliſh charges included, about 7500 livres; the French duty 3600 livres; and port charges, &c. make it in all about 11,000 livres, which being near 5l. a chaldron ſeems an enormous price, at which to buy fuel for a manufacture. The coals of the Cotentin, they ſay here, are good for nothing.

Granville.—The blackſmiths burn Guernſey coals.

Auray.—Engliſh coals 3 livres the boiſſeau of about three Engliſh pecks, which the blackſmiths uſe for particular purpoſes.

Nantes.—French coal 300 livres the twenty-one barriques, each double wine-meaſure, or four hundred and eighty pints, but one barrique of Engliſh is worth two of it.

A coal mine worked by a Monſ. Jarry, at Langein, five leagues from Nantes. Another at Montrelais, near Ingrande; and at St. George, near Saumer. The French coals uſed in the foundry, near this city, come to 34 livres the two thouſand pounds.

La Fleche.—Price 16*ſ.* the boiſſeau, of thirty pounds, wheat; they are from Angers.

Rouen.—Monſ. Scannegatty works the common borer with a windlaſs in boring deep for coals, for which purpoſe he has been employed by government: he ſhewed me the model of one made at Paris, three hundred feet long, with this he has bored one hundred and ſixty feet, much of it in hard rock, without accident; his objection to ſhafts is the water riſing, he would uſe ſhafts until he comes to water, but after that muſt bore. He ſays the badneſs of the coal in the mine near Cherbourg, ariſes merely from being ill worked; they have got at preſent only to the ſurface coal, inſtead of piercing through the bed. M. Scannegatty aſſerts the conſumption of Engliſh coals in the generality of Rouen to be two millions a year. The price is 40 livres for ſix and a half barriques, each barrique one hundred and fifty pounds, or nine hundred and ſeventy-five pounds, or about 80 livres a ton.

Elbœuf.—Conſumes 200,000 livres a year in Engliſh coals.

Nangis.—Brought from Berri. Price 4 livres the Engliſh buſhel.

LORRAINE.—*Pont-à-Mouſſon*—From Sarbruck 18 livres the thouſand pounds. At the mine 5 livres.

ALSACE.—*Befort.*—Price at the mine, four leagues from this place, 12*ſ.* the hundred pounds; here 16*ſ.* They are uſed only by blackſmiths.

BOURGOGNE.—*Chagny.*—Coals from Mont Cenis; at the mine 6 livres the wine *queu*—here 10 livres. Nobody burns coals in their houſes.

Mont Cenis.—At the mine a *ban* 10*ſ.* It is remarkable, that at the inn here and at every houſe, except thoſe of the common workman, wood is burnt: which ſhews the abſurd prejudices of the French in favour of that fuel, in ſpite of price.

BOURBONNOIS.—*Moulins.*—Price 30*ſ.* the *bachole*, of which four makes a poinçon.

AUVERGNE.—*Clermont.*—Price 10 livres the raze of two feet two inches, by one foot ſix inches, and nine inches deep. Uſed only in ſtoves or by blackſmiths, they are from Brioude.

Brioude.—The *raze*, of one hundred and fifty pounds, 16*ſ.* but the beſt is 20*ſ.*

Fix.—The *carton* of fifty pound 14*ſ.*

VIVARAIS.—*Coſteros.*—The quintal 50*ſ.*

Thuytz.—The blackſmiths here burn charcoal, yet are near the coal mine which I paſſed in the vale; it is a ſtone coal; the price 7*ſ.* the hundred pounds.

DAUPHINE'.—*Montélimart.*—Large coal 1 livre 15*ſ.* the one hundred and fifty-five pounds; ſmall, for blackſmiths and manufacturers, 22*ſ.* the one hundred and fifty-five pounds. The mine is at Givors near Vienne, at five leagues from Lyon; there is a canal to Vienne, but with a toll. Coak, made of coal, for melting, 5*ſ.* the quintal.

Pierre Latte.—Coals 3 livres the meaſure of about ſix pecks; none uſed by blackſmiths.

PROVENCE.—*Tour d'Aigues.*—Price 40*ſ.* the quintal. 16*ſ.* or 18*ſ.* at Aix. At the mines three leagues from Aix, 5*ſ.*

Marſeille.—Coals from Givors in Dauphiné near Lyon, 33*ſ.* for two hundred and ten pounds, of Faveau in Provence, 40*ſ.* to 24*ſ.* for three hundred pounds. Of Valdonne 41*ſ.* ditto; uſed in the ſoap fabric and ſugar refineries. Of England 42*ſ.* to 45*ſ.* on board the ſhip, for two hundred and ten pounds; on ſhore 60*ſ.* for one hundred and ninety-five pounds.

LYON-

LYONNOIS.—*Lyon.*—Coals 30*ſ.* the one hundred and thirty pounds. The mines are ſix leagues off, price there 24*ſ.* for one hundred and ſixty pounds: there is a canal from the pits to the Rhone.

The want of vigour in working the coal-mines in France, is to be attributed to two cauſes; 1. the price of wood has not riſen ſufficiently to force this branch of induſtry; and, 2. the want of capital which affects every thing in that kingdom, prevents exertions being made with the neceſſary animation. But theſe evils will correct themſelves; the gradual riſe in the price of wood, which ſo far from being an evil, as it is univerſally thought in France, is only a proof of national improvement, will by degrees force the conſumption of coals; and when theſe are in the neceſſary demand, they will be produced in greater quantities.

CHAP. XXVIII.—*Woods, Foreſts, Timber, and Planting, in France.*

Pyrennées.—A conſiderable proportion of theſe mountains is under wood, and a much larger has been; for the deſtruction of them making every day is not credible to thoſe who have not viewed them. Paſſed frequently through ſeveral woods near Bagnere de Luchon, in which the woodmen were at work, riving and cutting beech ſtaves for caſks; I was ſhocked to ſee the deſtruction they made, which could not have been more waſteful or laviſh if they had been in the midſt of an American foreſt. Large and beautiful beeches are cut off, three, four, and five feet high, and thoſe noble ſtumps left to rot; whole trees, which on trial would not rive well, left for years, and now rotting untouched: and in working thoſe we ſaw, nothing but clean cuts taken, three or four feet perhaps in fifty, and the reſt left on the ground in the ſame confuſion in which it fell. The deſtruction ſo general in this noble foreſt of Lartigues, that it is almoſt deſtroyed; there is no young growth for ſucceſſion; and in ten or twelve years it will be a bare mountain with a few miſerable ſhrubs browzed by goats and other cattle. In ſome tracts which I paſſed, at a few leagues diſtance towards the walks of the Spaniſh flocks, there are ſome foreſts deſtroyed in ſuch a ſhameful manner, that to a perſon, from a country where wood is of any value, muſt appear incredible; ſeveral ſcores of acres ſo utterly deſtroyed that not a tree remains ſtanding; yet the whole a foreſt of ſtumps, three, four, and ſix feet high, melancholy and ſhocking to behold. The torrents every where roll down as much wood as ſtone, and preſent a ſpectacle of ſimilar ruin; the roads are formed of fragments of trees, and are guarded againſt the precipices by whole ones laid and left to rot; you no where paſs many yards without thruſting your cane into bodies, rotten, or rotting; all is ruin, waſte, and deſolation; and the very appearance one would ſuppoſe a wood to carry, in which a foreign enemy had, with the moſt wanton malice, deſtroyed every thing.

Theſe woods are commons belonging to the communities of the pariſhes, upon which every inhabitant aſſumes the right, and practiſes the rage of depredation. So careleſs of the intereſts of poſterity, or rather ſo inflamed againſt every idea but that of the preſent moment, that, in the general opinion, there will be an undoubted ſcarcity in thirty years, amidſt what have been, and yet are, in ſome diſtricts very noble foreſts. The communities ſometimes ſell woods; an inſtance occurred lately, that of Bagnere de Luchon ſold a fall for 14,000 livres, but worth, it is ſaid, 35,000 livres, in which ſome pilfering might take place; this was to pay their ſhare of the new bathing-houſe. Is it poſſible that ſuch a recital can be given of a country that imports pot-aſh from the diſtance of two thouſand miles?

The number of ſaw mills in theſe mountains, turned by torrents, is conſiderable; they are of a very cheap and ſimple conſtruction, but exceedingly incomplete, having no mechanical contrivance for bringing the tree to the ſaw, a man conſtantly doing it by preſſing with his foot on the cogged wheel.

LANGUEDOC.—*Lunel.*—At the Palais Royal inn there is one among many ſtables which is covered by twelve large beams, ſixteen or eighteen inches ſquare, and forty-five feet long. The whole country is at preſent *quaſi* ſuch trees as theſe, denuded.

GASCOGNE.—*St. Palais to Anſpan.*—An oak here ſells for 30 livres, which would in England ſell for 45s. to 50s.

ISLE OF FRANCE.—*Licurſaint.*—In the royal foreſt of Senars, the oak copſes are cut every twenty years, and ſell at 600 livres the arpent (the cord of wood ſelling at Paris, at 50 livres), which makes 30 livres a year, but from this carriage is to be deducted, and there will remain about a louis d'or.

Liancourt.—Woods here form a conſiderable portion of the whole country. They are in general cut at twelve years' growth, but in ſome parts at fifteen and twenty; they ſell at twelve years from 100 livres to 200 livres the arpent (about one acre and a quarter): at 150 livres, it may be called 12 livres per ann.; as they are on the pooreſt land this is much more conſiderable than the ſame land would let for, but it is much inferior to what the product of the ſame lands would be under a tolerable ſyſtem of cultivation. The quantity of foreſt ſpread over the country, in almoſt every direction, makes timber cheap: oak, aſh, and elm ſell at 30*ſ.* the cubical foot, a larger foot than that of England. The pooreſt family 60 livres a year in wood.

Clermont.—Near this place, in the foreſt of la Neuville eu Haye, belonging to the king, there is an undertaking now (1787) going forward, which does honour to government: it is a plantation of oak for timber. The land is incloſed with pales, wired to the rails in the French manner, inſtead of nailing: the land is all trenched two feet deep, for which the workmen are paid according to the ſoil, 20*ſ.* to 40*ſ.* the ſquare perch of twenty-two feet, and they earn about 22*ſ.* a day: as it was an old foreſt where they work, there are many roots, for extracting which they are allowed ſomething more. The ſoil in general is a good light loam, except in ſome parts on a pure white ſand. The whole expence by contract (fencing excepted), digging, planting, filling vacancies, and hoeing twice a year, for five years, is 300 livres the arpent, of about one acre and a quarter. The fence is 3 livres the toiſe, or about 1s. 2d. a yard, running meaſure: ſixty arpents are done, and they are ſtill at work. I viewed the oaks with pleaſure; they are moſt of them remarkably fine; they thrive well and are very healthy; ſome are five years old from the ſeed, and others five years old from tranſplanting; the plants then three years old: theſe are the largeſt, but not more ſo than three years' difference in age ought to make them; they are in rows at about four feet. There is alſo a ſmall incloſure of cheſnuts and Bourdeaux pines (*pinus maritimus*,) ſown four years paſt, which are now five feet high, which is a vaſt growth. The only enemy which the oaks have hitherto met with is the cock-chaffer grub, which has killed ſome.

Dugny.—Monſ. Cretté de Paluel has planted many thouſands of the poplar with ſucceſs, and has cut them when only twelve years old, large enough for building. Several of his farming offices, very well and ſubſtantially built, are of this wood, erected twelve years ago: and the timbers are now as ſound as at the time of uſing; but he has found that when expoſed to the weather it does not laſt.

NORMANDIE.—*Bon.*—The ſeat of the Marquis de Turgot, elder brother of the celebrated controleur-general. A large plantation of foreign trees, in which nothing is ſo remarkable as the ſuperiority of the larch to every other plant.

Falaiſe.—Woods at twelve years growth, pay 8 to 10 louis an acre, or 22 livres a year.

Harcourt.—The larch and Weymouth pine of eighteen years growth, have thriven beyond any thing. I meaſured a larch of that age, three feet ſix inches in circumference, at five feet from the ground; and a Weymouth two inches larger. Woods throughout Normandy, on an average, pay 20 livres the Norman acre (10s. 6d. per Engliſh acre).

La Roche-Guyon.—There is nothing in this country that pays better than plantations of willows for yielding vine props. The Ducheſs D'Enville has a piece of three and a half arpents, which yields 400 livres a year, by being cut every third year. New ones are ſet as the old wear out; the heads are cropped at three years old, and the great product is from nine to eighteen years of age. Lombardy poplars planted by the preſent Ducheſs, of twenty-four years growth, are worth 11 livres each, ſtanding only ſix feet aſunder: it would be uſeleſs to apply calculation to this fact, to ſee what the acreable produce would be; for if a man had a few acres to ſell every year, he would be able to get no more than the price of a very bad fire wood, not ſaleable till after every better ſort in a country was conſumed. Could a demand be found the profit would be enormous. They grow on the level of the Seine. They are cut into boards ten inches wide, which ſell at 2*ſ.* the foot.

ISLE OF FRANCE.—*Columiers.*—Woods at nine years growth, worth 180 livres the arpent (9l. the Engliſh acre).

CHAMPAGNE.—*Mareuil.*—At twenty years growth, worth 300 livres the arpent (10l. 10s. per Engliſh acre), at one and a half or two leagues from the Marne, but if further, 4 livres per arpent per annum deduction.

Epernay.—It is poſſible to go from hence to Alſace, with no great interruption, through foreſt all the way.

LORAINE.—*Braban.*—Woods are cut at twenty years growth, and the produce 12 livres per arpent per annum (18s. 4d. per Engliſh acre).

Metz.—Woods cut at twenty to twenty-five years growth, 120 livres the journal.

Luneville.—Woods cut at twenty-five or thirty years growth, from 40 livres to 100 livres net the journal, one thouſand nine hundred and ſeventy-four Engliſh yards.

FRANCHE COMTE'.—*Beſançon.*—Cut at twenty-five years growth, and yields 150 livres to 200 livres the cutting, or 8 livres per annum per arpent; near the forges of the city, to 300 livres (10l. 10s. per Engliſh acre).

Orchamps.—A little auberge conſumes from twenty to thirty waggon loads, each 8 livres in a year at one fire.

BOURGOGNE.—*Auxonne.*—Paſs a wood felled and corded, twelve cords per Engliſh acre; the cord eight feet by four feet, and two high; and the price 8 livres. A little aubergiſte conſumes to the amount of 200 livres a year one fire. It would coſt a poor family 80 livres a year, if they bought fairly all they burn. Calculate

Four millions of families, at one cord, and at ten per acre,	400,000 acres,
Cut at twenty years, - - - -	8,000,000
At two cords, - - - -	16,000,000
At three ditto, - - - -	24,000,000

Dijon.—Conſumption of one fire, five or ſix *mœul* for the poor, the *mœul* four feet cubical. Of the whole town of twenty-four thouſand people, forty thouſand *mœul*. Beſt oak timber, 3 livres the cubical foot. Inferior to 20*ſ.* Elm dearer than oak; uſed for wheel carriages only. Pine one-third cheaper.

BOURBONNOIS.—*Moulins*—Copſes cut at fifteen years growth, and ſell at 50 livres the arpent, of forty-eight thouſand three hundred and eighty-four feet; no expence except cutting. Oak timber, 18*ſ.* to 20*ſ.* the cubical foot. Planks of nine, ten, and eleven inches wide, 45 livres to 60 livres the hundred toiſe (ſix feet), $\frac{5}{4}$ inch thick. Laths 14*ſ.* the faggot, of fifty-two, and five feet long.

AUVERGNE.—*Riom*—One fire, and a very poor one, 80 livres, if bought.

Clermont.—A poor family, to ſteal none, muſt have ten cord, or 60 livres, and charcoal to the amount of 15 livres; but in general they ſteal, or collect as well as they can.

VIVARAIS.—*Pradelles to Thuytz.*—Great woods of pines in theſe mountains, with ſaw-mills for cutting them.

DAUPHINE'.—*Loriol.*—Oak 12*ſ.* the hundred pound.

PROVENCE.—*Tour d'Aigues.*—Wood thrives greatly in this country. The Preſident has a great many oaks, and ſome of a vaſt ſize; alſo black poplar and beech. One by the farm-houſe, thirteen feet eleven inches, French, in circumference, at five feet from the ground, and eighty feet high. Here alſo are ever-green oaks, five hundred years old. He has *platanus* of a vaſt growth, in twenty-five years, and the *morus papyrifera*, of a great ſize. The pooreſt family in this country conſumes ſixty quintals of wood a year, ſtolen or bought; generally the former. A bourgeoiſe, that has ſoup every day at one fire, one hundred and fifty quintals.

Fréjus to Eſtrelles.—The pines, &c. in theſe mountains, hacked, plundered, and deſtroyed, almoſt as wantonly as in the Pyrennees: and ſpots every where burnt by the ſhepherds, though prohibited, in order to procure herbage for their flocks.

Price of Wood and Charcoal, &c.

Price per Paris load of 140 ft. liv.

1787.—LIMOUSIN.—*Limoges.*—Charcoal 30*ſ.* the quintal.

ANGOUMOIS.—*Verteuil.*—Cord of wood 10 livres near a navigation; 3 livres at a diſtance.

ISLE OF FRANCE.—*Montgeron.*—Cord 44 livres.

FLANDERS.—*Lille.*—Ditto 60 livres.

Dunkirk.—Ditto 60 livres the load of one hundred meaſures.

1788.—NORMANDY.—*Caen*—Charcoal 20*ſ.* the raziere, of forty pound of wheat.

Cord of beech wood, ſix feet long, four broad, and four high, 24 livres, - 35

Other woods, 18 livres to 20 livres, - - - - 27

Faggots of three and a half feet round, and five feet long, with large wood in them, 60 livres to 80 livres per hundred.

BRETAGNE.—*Rennes.*—Cord eight feet long, four high, and two and a half broad, 15 livres to 17 livres, - - - 28

Landernau.—Cord eight feet by four feet, and two and a half high, 24 livres, 42

L'Orient.—Cord eight feet by four feet, and two and a half high, 20 livres, 35

Auray.—Charcoal 3 livres the barrique. Iron 5*ſ.* the pound. A horſe ſhoe 12*ſ.*

Auvergnac.—Cord of wood, 28 livres, - - - 49

Nantes.—Ditto 30 livres to 36 livres, - - - 57

Swediſh iron 280 livres the thouſand pound. Hemp 50 livres the hundred ditto.

Ancenis.

	Price per Paris load: of 140 ft. liv.
Ancenis.—Cord 24 livres.	42
ANJOU.—*Angers.*—Cord eight feet long, four feet high, and four broad: a double cord, 40 livres.	42
Faggots 18 livres to 24 livres the hundred.	
La Fleche.—Cord 16 livres to 21 livres,	39
Charcoal 70 livres to 80 livres the forty-two barriques.	
MAINE.—*Gueſcelard.*—The cord, ſix feet by 3½ feet, and 3½ high, of pine, 6 livres,	12
Ditto of oak, 14 livres,	26
NORMANDY.—*Gacé.*—Charcoal 52*ſ.* the barrique. Iron 23 livres the hundred pound, or 1 liard leſs that 5*ſ.* the pound. They charge 8*ſ.* the pound for heavy work, and 32*ſ.* for ſhoeing a horſe.	
Elbœuf.—The cord eight feet by four feet, and 2½ high, 24 livres,	42
La Roche Guyon.—Cord eight feet by four feet, and four high, is 30 livres,	32
ISLE OF FRANCE.—*Nangis.*—Cord twelve feet by four feet, and four high: price 24 livres to 28 livres,	18
CHAMPAGNE.—*Mareuil.*—Cord eight feet long, five feet high, and three feet ſeven inches broad, ſells, oak 36 livres,	31
White woods 24 livres,	21
Charcoal 50*ſ.* the tonneaux, of two hundred pints of Paris (quarts).	
Epernay.—The cord 40 livres,	40
St. Menehoud.—Cord eight feet by four feet, and 3½ inches: 18 livres 10*ſ.*; in the town 19 livres; but twenty-five years ago it was 7 livres to ten feet,	24
LORRAINE.—*Braban.*—Cord eight feet by four feet, and four high, is 19 livres,	20
Mar-le-Tour.—Cord eight feet by four feet, and four high, is 16 livres; the beſt 21 livres,	20
Metz.—Charcoal 30*ſ.* the ſack: cord eight feet by four feet, and four high; is 32 livres; of beach and hornbeam,	35
Of oak, 22 livres,	24
Pont à-Mauſſon.—Cord eight feet by four feet, and 4 high: in town 16 livres 10*ſ.*	18
In the foreſt 12 livres.	
Nancy.—Cord floated oak 20 livres; other ſorts 23 livres,	28
Not floated oak 26 livres; beech and hornbeam 34 livres,	37
Luneville.—Cord eight feet by four feet, and four high: now 24 livres to 28 livres.	
Beech,	28
Oak 22 livres to 23 livres,	24
ALSACE.—*Straſbourg.*—Cord ſix feet by ſix feet, and three high: price 27 livres,	38
Scheleſtat.—Cord ſix feet by ſix feet, and three high; price 24 livres *,	32
Iſle.—Cord eight feet by four feet, and four high; price 12 livres, yet many iron forges,	14

* Some ſold ſix feet by ſix feet, and ſix high.

FRANCHE

Price per Paris load of 140 ft.

FRANCHE COMTE'.—*Beſançon.*—Cord eight feet by four feet, and four high, liv.
floated, 16 livres 10*ſ.* - - - - - 18
Not floated, 25 livres, - - - - - 27

Orchamps.—Iron; all uſed by blackſmiths; is of the country; 5*ſ.* the pound. Charcoal only uſed in making it, at 40 livres the load of four horſes, about fifty or ſixty buſhels; there are forges ſpread over the whole country: one within three leagues, which, with its furnace, uſes fifty loads of wood per diem. Shoeing a horſe 40*ſ.*

Dijon.—Cord 7½ feet by four feet, and 4½ high, at 26 livres the mœul, a cube of four feet, and the price 13 livres, - - - -
Price of carriage 20*ſ.* per thouſand pound for each league.

Chagny.—Mœul, cube of four feet, 13 livres to 16 livres, -
Iron: tier of wheels 7*ſ.* the pound and 8*ſ.* for the nails. Price of iron 5*ſ.* 1 liard.

Moulins.—Cord, two to a coche, 30 livres. Charcoal 3¼*ſ.* to 3*ſ.* the Engliſh peck. Iron 1 liard under 5*ſ.* per pound. Caſt ditto 3*ſ.*

Clermont.—Cord three feet eleven inches, by ſeven feet four inches circumference; price 6 livres, about one-fourth of a Paris cord, - - - 24
Charcoal 2*ſ.* the pound.

Fix.—Iron 5½*ſ.* the pound.

Montélimart.—Charcoal 5*ſ.* the hundred pound.

Pierre Latte.—Wood 20*ſ.* the hundred pound.

Avignon.—Wood 18*ſ.* to 20*ſ.* the hundred pound. Charcoal 3 livres the hundred pound.

Tour d'Aigues.—Charcoal 45*ſ.* the hundred pound.

Marſeille.—Wood 3 livres 17*ſ.* for three hundred pound, and 8*ſ.* carriage from the ſhip.
In winter the ſame, 5 livres. Charcoal, by ſhipping, 50*ſ.* the quintal, one hundred and twenty pound; by land 70*ſ.*

Lyon.—Oak, the mœul, three feet eight inches ſquare, 23 livres.
General average, - - - - - 30

To theſe data may be here added, that the woods and foreſts of the kingdom amount to 19,850,515 acres, and that the average annual produce may be reckoned 14s. an acre. It here appears, that the average price per cord, of one hundred and forty cubical feet, is 30 livres.

The price of wood has riſen conſiderably in France. Price of the lignier, equal to two Paris voies, at Bourg, in Breſſe.

In 1688,	- -	3 liv. 0*ſ.*
1718,	- -	3 12
1748,	- -	7 10
1778,	- -	9 0
1789,	- -	21 0*

The ſcarcity of wood in France, as marked in this riſe of price, has occupied at leaſt an hundred pens during the laſt ten years: almoſt all the cahiers complain heavily of it, and in that of the clergy of Meaux, they call it a real calamity. There is hardly a ſociety of

* *Obſervations ſur l'Agriculture*, par Ma. Varenne de Fenille. 8vo. p. 141.

agriculture in the kingdom, that has not offered premiums for memoirs that ſhould explain the cauſes of ſuch an alarming want, and point out the beſt means of remedying it. The opinion is univerſal; I have met but one mind upon the topic, which, conſidering the talents for political œconomy, ſurpriſed me a good deal; for I muſt declare myſelf of a directly contrary opinion, and venture to aſſert, that the price of wood is too low in France; that it has not riſen ſo rapidly as it ought to have done; and that all ideas of encouraging plantations, to prevent a further riſe, are ignorant and miſchievous, and founded in a total miſconception of the ſubject, for want of combining thoſe circumſtances which bear upon the queſtion. The rent of arable land, in France, calculated ſeparately, and rejecting the parts left waſte, and in neglect, is 15s. 7d. an acre; but the rent of woods is only 12s. How then in common ſenſe can any one complain of a price of wood, which, inſtead of being at its preſent rate an injury to the conſumer, is actually a material one to the landed intereſt, who do not make by their woods nearly what they would do by the land if it was grubbed, cleared, and converted to cultivation; and I am ſo well perſuaded of this, that if I was the poſſeſſor of woods in France, I would moſt aſſuredly grub up every acre that did not grow upon land impracticable to the plough; and I ſhould do this under the firmeſt conviction that my ſpeculation would be profitable. If tillage improves, and freed from tithes and inequality of taxation no one can doubt but it will improve, the price of wood ought to riſe very conſiderably to prevent landlords, who are well informed, from grubbing up; and let it be conſidered how vaſt a premium there is to induce them to ſuch a conduct, in all woods where the growth is ancient, as forty, fifty, ſixty, and a hundred years, at which age many are found in France: the money which the ſale of ſuch would produce, placed at intereſt, and the land converted to tillage, would in moſt inſtances treble, and even quadruple, the revenue to be gained from the ſame land while cropped with wood. Nor is it to be forgotten, that freſh wood-land is generally fertile, poſſeſſing ſtores that, with good management in reſpect to cropping, may be made to laſt at leaſt twenty years, and in ſome meaſure for ever. We may ſafely determine that the price of wood is not riſen to a fair par with other land products, until it can no longer be the intereſt of the land owner to grub up, and till woods yield as good a revenue as the lands around them, *well cultivated*. It is an undoubted fact, that the price is not yet riſen near to ſuch a par.

There is yet another, and equally unqueſtionable proof, that the price of wood is much too low in France, and that is the coal mines, found in almoſt every part of the kingdom, remain for the greater part unworked; and that the people burn wood even in the immediate vicinity of ſuch mines; I was myſelf ſerved with wood at all the inns, at and near the coal mines wrought, of Valenciennes, Mont-Cenis, Lyon, Auvergne, Languedoc, Normandie, Bretagne, Anjou, &c. &c. Is it poſſible to ſuppoſe that this would be the caſe if wood was riſen to its fair par with other commodities?

The concluſion to be drawn, from this ſtate of facts, is ſufficiently clear, that the legiſlature ought not to take any ſteps whatever to encourage the production of wood, but leave it abſolutely free to riſe gradually to that fair price to which demand will carry it; and that the ſocieties and academies of agriculture, compoſed of citizens, that is to ſay, commonly of mere conſumers, unintereſted in the production, ought to ceaſe their unjuſt and impertinent clamour againſt the price of a commodity which is much too cheap. Whenever the price of wood riſes too high, coal mines will every where be effectually worked, and the people in ſight of them moſt aſſuredly will not burn wood.

We have of late had, in England, the ſame vulgar apprehenſion of a want of wood, eſpecially for ſhip building, which has diſgraced France. No wonder timber has been deſtroyed

deſtroyed in both kingdoms, while the price was inadequate to the expence of raiſing it. Timber for ſhip building, as well as cord-wood, ſhould at leaſt bear a proportion with corn, meat, butter, wool, &c. which the ground might yield if not occupied in a different manner. The compariſons made are by landlords, who look only at *rent*, but the national intereſts require that *produce* ſhould be conſulted. The argument commonly uſed, by the proprietors of the *landes* of Bourdeaux, againſt cultivating them, is, that they yield at preſent, in pines, a better *rent* in reſin than they would do for cultivation, which is certainly true, if the culture introduced was not good; but what a loſs to the nation to have lands employed to yield, like all the woods of the kingdom, a groſs produce of 16 livres per acre, inſtead of 40 livres, the produce of arable land? Thoſe who contend for encouragement to planting, becauſe wood is dear, call for the marvellous improvement of converting land, which now yields 40 livres, to the ſtate of yielding 16 livres! It is juſt the ſame in England; our ſocieties offer premiums for planting, and, as far as thoſe premiums are claimed, or induce men to think planting an improvement, they are attended with the miſchief and abſurdity of preferring a ſmall to a great produce. There are tracts of *impracticable* land, I will not ſay *waſte*, becauſe nine-tenths of our waſte lands, like thoſe of France, are ſuſceptible of cultivation, and therefore it is a public nuiſance to plant them: it may be profitable to the landlord to plant quick growing trees, becauſe he conſiders only *rent*, but ſocieties and the nation ſhould look at *produce*, and conſequently diſcourage all planting.

The common argument, that is founded on the ſuppoſed neceſſity of a Royal Navy, I ſhould be ſorry to beſtow three words upon; for I hold every idea of a great naval force to be founded on very queſtionable theories. Injurious to other nations in its object, which is that of extending to the moſt diſtant parts of the globe, the miſchievous effects of ambition, and all the horrors that attend the ſpirit of conqueſt, when flowing from the worſt ſpirit of foreign commerce. A great navy affords the means of ſpreading what may to Europe be called a domeſtic quarrel to the moſt diſtant regions of the globe, and involving millions in the ruin of wars, who are in juſtice as unconcerned in the diſpute as they are removed by diſtance from the natural theatre of it. And whatever commercial neceſſity, founded upon the worſt principles, may be urged in the ſupport of it, yet the expence is ſo enormous, that no nation, it is now well underſtood, can be formidable both at land and ſea at the ſame time, without making efforts, that throw our own burthens, by means of debts, on our innocent poſterity. Mr. Hume remarks, that the Britiſh fleet, in the height of the war of 1740, coſt the nation a greater expence than that of the whole military eſtabliſhment of the Roman Empire, under Auguſtus, while all that deſerved to be called the world was in obedience to his ſceptre; but in the late war, the expence of our fleet amounted to more than the double of what attracted the notice of that agreeable and profound politician, for the naval expence of 1781 aroſe to 8,603,884l.

The ambition of ſtateſmen is ready at all times to found upon a great commerce the neceſſity of a great navy to protect it; and the next ſtep is, the ſuppoſed neceſſity of a great commerce to ſupport the great navy; and very fine arrangements, in political œconomy, have been the conſequence of this miſchievous combination. The deluſive dream of colonies was one branch of this curious policy, which coſt the nation, as Sir John Sinclair has calculated, two hundred and eighty millions! Rather than have incurred ſuch an enormous expence, which our powerful navy abſolutely induced, would it not have been better had the nation been without commerce, without colonies, without a navy? The ſame madneſs has infeſted the cabinet of France; a great navy is there alſo conſidered as eſſential, becauſe they have in St. Domingo a great colony; thus one

nuiſance

nuiſance begets another. The preſent century has been the period of naval power. It will ceaſe in the next, and then be conſidered as a ſyſtem founded on the ſpirit of commercial rapine.

But whatever neceſſity there may be for navies, there is none for raiſing oak to build them, which it is infinitely better to buy than to cultivate. There is no proſpect of exhauſting the oak of the north, of Bohemia, Sileſia, Poland, Hungary, and the territories on the Adriatic, for centuries to come; the price will riſe as carriage becomes expenſive, but the ſupply will remain for ages. So long ago as the beginning of the laſt century, we uſed fir for building, from the ſcarcity of oak *; and notwithſtanding the immenſe conſumption ſince, the countries that ſupply it promiſe to continue that ſupply for five centuries to come.

A veſſel of the firſt rank is ſaid, in France, to demand ſixty thouſand cubical feet of timber †; but a later account makes it much more conſiderable.

		Quantity in a Ship of 116 Guns.		Quantity in a Ship of 74 Guns.
Cubical feet,—	Firſt ſpecies,	77,520	—	47,356
	Second ditto,	39,840	—	16,161
	Third ditto,	5,896	—	12,300
	Fourth ditto,	1,250	—	1,780
	Fifth ditto,	180	—	19
	Plank,	1,995	—	1,497
		126,681	—	79,113
	Fir,	8,449	—	6,338 ‡

The common price of oak 3 livres the foot.

I cannot quit the ſubject of woods without remarking, that many of the nobility, in France, have given that attention to the introduction of exotic trees, which would have been a thouſand times better applied to improving the agriculture of their diſtricts: I ſaw many places, the owners of which affected to make a reputation by their evergreens, and other plantations, while living in the midſt of lands, under a cultivation diſgraceful to the kingdom, and the ſame even on their own farms. For one ſol that France will ever be improved by their exotics, it was in their power to have improved her many louis, by very different exertions.

CHAP. XXVIII.—*On ſome Œconomical Practices in France.*

SOME ſcattered minutes, not abſolutely uſeleſs may perhaps better be thrown together than burnt; for ingenious men ſometimes catch hints from a ſlight mention of practices, and apply them to uſes not at firſt thought of.

Building.

LANGUEDOC.—*Montauban to Toulouſe.*—At a brick-kiln, obſerve that they burn only faggots of vine-cuttings.

* "And now of late, for want of other timber, we begin to uſe fir for building of houſes." *An Old Thrift newly revived, or the Manner of Planting, &c. by R. C.* 4to. 1612. Black letter. P. 7.

† *Recherches ſur la Houille d'Engrais.* Tom. ii. p. 25.

‡ *Encyclopédie Methodique.* 4to. *Marine.* Tom. i. part 1. p. 163.

Bagnere de Luchon.—For building the new bathing-houſe erecting here, by the ſtates of Languedoc, they work the lime (burnt from a fine blue hard ſtone) with gravel inſtead of ſand, of which they have none in the country; and, on examination, I found this gravel to be a true lime-ſtone one, the ſame ſo often met with in Ireland. I could not find that the mortar was the harder or better for this; but, on breaking, rather ſofter than that of ſand. They have here a very effectual method of cementing ſtone; when ſquared blocks break, they join them very eaſily, by applying this cement;—reſin, three-fourths; ſulphur and wax, one-fourth; powdered ſtone, of the ſort to be joined, enough to give it the right conſiſtence when melted. This holds the ſtone ſo firmly together, that the ſolid part will break rather than at the junction.

NORMANDY.—*Carentan to Coutances.*—They build here the beſt mud houſes I have any where ſeen; very good ones, of three ſtories, are thus raiſed: and conſiderable offices, with large barns. The earth and ſtraw well kneaded together, are ſpread, about four inches thick, on the ground, cut in ſquares of nine inches, and theſe toſſed from a ſhovel to the man on the wall, who builds it; it is finiſhed, layer by layer, and left for drying, as in Ireland; the layers three feet high, and the thickneſs of the walls about two feet; they make them projecting about an inch, which they cut off, layer by layer, perfectly ſmooth; if they had the Engliſh way of white-waſhing, they would look as well as our lath and plaſter houſes, and be vaſtly better and warmer. In good houſes, the doors and windows are in ſtone work.

Bernay.—Mud walls to incloſe gardens, and for fruit, well built and thatched at top.

CHAMPAGNE.—*Epernay.*—Monſ. Paretclaine's new oak floor, which is the common faſhion of France, of ſhort ſcantlings, in a ſort of Moſaic, coſts 40 livres, the ſquare toiſe of ſix French feet, including joiſts and all. They are dove-tailed along the ſides, but nailed at the ends, the nails knocked in, and a plug of wood driven in and plained off.

Lime.

LANGUEDOC.—*Bagnere de Luchon.*—The lime-kilns here, while burning, have a remarkable ſmell of burning ſulphur, from the quantity of that mineral with which the lime-ſtone is mixed. They build their kilns oval, ſwelling in the middle, with a mouth, not quite at the bottom, where they put in the wood: the upper part is covered with ſtones, in order to keep the heat in. They are twenty-four hours burning the lime. When burnt, ſtop the mouth cloſe, and leave it to cool, which takes three days; after which, they take the lime out. A kiln holds four hundred ſeptiers, which may be ſuppoſed the ſeptier of Paris. They carry, with a pair of oxen, but two ſeptiers. Sell it at 40*ſ.* to 45*ſ.* the ſeptier. Such a quantity of lime takes ſix hundred faggots to burn, and a little other wood.

FLANDERS.—*Armentieres to Montcaſſel.*—Heaps are lying in ſome of the fields, ready for ſpreading. It is burnt in the country.

MAINE.—*La Fleche to Le Mans.* Lime burning; the price 5 livres the pipe, of two barriques.

Beaumont.—Lime-ſtone plentiful, yet lime 10 livres the pipe.

Alençon to Nonant.—Lime-ſtone every where, yet lime 16 livres the tonneaux, of two pipes.

BOURBONNOIS.—*Moulins.*—Lime 55*ſ.* the poinçon, thirty inches high, and twenty-two diameter.

VIVARAIS.—*Pradelles.*—Lime 9*ſ.* the meaſure of thirty-two pounds.

Fences.

Fences.

NORMANDY.—*Pays de Caux.*—The fences here reſemble more the double banks and ditches of Ireland than any I have ſeen: parapet banks are thrown up out of a double ditch, ſloped; and upon them are planted a hedge, and one or two rows of trees; and the ſoil is ſo rich, that all thrive to ſuch a pitch, as to form hedges forty or fifty feet high, and perfectly thick. By means of ſome ſmall incloſures of this ſort around every houſe, every habitation is a redoubt, and would make the country very defenſible, for a ſmall army againſt a great one.

Pont L'Eveque.—Many of the rich paſtures here are ſo well fenced, that one can no more ſee through a ſingle hedge, than through a wood; yet there are many willows in them, with only a mixture of thorns and bramble; but they are ſo well trained, and of ſuch a luxuriant growth, as to be impenetrable to man or beaſt.

In fencing little is to be learned in France, yet a conſiderable portion of the kingdom is incloſed. In England we have carried that art to a perfection of which the French know little. It is only in a few diſtricts, where gates and ſtiles are regular; in others, a few buſhes put in a gap ſupply the place. Whenever the French have inveſted in their agriculture, the ſums it ought to attract, at leaſt three or four thouſand millions of livres more than in at preſent, theſe objects will receive an attention which they have not yet commanded. They are by no means unimportant; and as far as connected with incloſing, in general, are eſſential to proſperity.

Fiſh Ponds.

SOLOGNE.—This province abounds very much with ponds of all ſizes, which let at from 5 livres to 12 livres the arpent.

BOURBONNOIS.—*Moulins.*—Through every part of this province, which I ſaw in croſſing it, in two directions, the number of fiſh ponds is very conſiderable. The country, though in extenſive views flat to the eye, is, on a nearer examination, found to ſwell into a variety of gentle inequalities, which form vallies, with ſmall brooks, ſprings, or ſtreams, in them, as eligible for a reſidence, and agreeable to the eye, as it would be beneficial to cultivation, if they knew how to apply them. Mounds are made acroſs theſe little vales to form ponds; and there are mills at their heads, when the ſtreams are conſiderable enough. Theſe ponds are from two or three to ten, twenty, and thirty acres, and ſome a great deal more. They are all fiſhed regularly every ſecond or third year, and the fiſh ſold, at ſo much a thouſand, to the merchants, who ſend them, by the Allier, Loire, canal of Briare, and Seine, to Paris. On one eſtate, I ſaw eight ponds, that paid 800 livres; on another, four paid 800 livres; and on a farm of about four hundred acres, four ponds paid 1000 livres. Water deceives one ſo much in gueſſing the ſuperficies, that I may be erroneous (for nothing is meaſured in this province); but I ſhould gueſs, that land under water paid 20 livres an acre at leaſt, inſtead of 3 livres, which is the more common net produce of the country; and at the ſame time that the proprietor receives this ſuperior benefit, his table is, by terms of the contract with the merchant, who ſtocks the ponds himſelf, allowed to be amply ſupplied.

BRESSE.—The ponds of this little province and Dombes, cover ſixty-ſix leagues ſquare of country, and are found terrible to population, from the effect they have

on the climate *. In 1764, ponds in France generally let at 5 livres to 7 livres per arpent †.

The management of ponds is vaſtly better underſtood in France than it is in England, both as to ſtocking, adapting the ſort of fiſh to the ſoil, clearing the ponds, emptying, fiſhing, &c. &c. In all Catholic countries, fiſh is of more importance than in Proteſtant ones, and this occaſions more attention being paid to them.

Leaves.

LANGUEDOC.—Gathering, the end of July, leaves of mulberries, for feeding cattle.

POITOU.—See them gathering elm leaves for cattle, particularly for mules, the firſt week in September.

TOURAINE.—Clipping elm trees to feed cows, in September.

Near Clarey, they gather the vine leaves in September; we ſaw them ſpread, in large quantities, by the ſides of the roads, with many women, girls, and boys, gathering and drying; they are for winter provender for their cows; this cuſtom is general through the country. They make an infuſion of theſe leaves in hot water, by boiling them with ſome bran; which mixture they give to their cows, in ſnowy or froſty weather, with ſtraw. Was a cow fed with leaves alone, it would require eight or ten arpents to ſupport a cow the whole winter; they reckon them very beneficial for this uſeful animal. Leaves are ſometimes ſold, in which caſe, ſuch a heap dry as would equal thirty pounds of hay, ſells for 20*ſ.* but all this varies according to the year. An arpent produces ſeven or eight times that quantity.

ISLE OF FRANCE.—Among the winter proviſion which Monſ. Cretté de Paluel, of Dugny, makes for his ſheep, is that of faggots, cut in ſummer while in full leaf, and houſed as ſoon as dry: theſe he has found to be of conſiderable uſe, and to anſwer the purpoſe perfectly well. When given to the ſheep they pick off every leaf carefully. Such a practice well deſerves attention in England.

DAUPHINE'.—About Montélimart the leaves of all mulberries are gathered in November for feeding ſheep. A gentleman, near the ſame place, feeds a flock of Spaniſh and half bred ſheep, with faggots cut in ſummer from full leaved trees.

PROVENCE.—The preſident de la Tour d'Aigues making elm faggots, in September, for his ſheep; a common practice: poplar alſo and oak; indeed all ſorts are thus applied. Olives are alſo excellent; one of twelve years growth will thus yield to the value of 12*ſ.*; every ſecond year, on good land, more than the expence.

For the better underſtanding this ſubject I beg to refer the reader to an excellent and uſeful memoir on the ſubject, by Mr. Profeſſor Symonds, inſerted in the *Annals of Agriculture*, vol. i. p. 207. ‡

This is one of the œconomical practices of France, which well deſerves imitation in England: not gathering leaves, for I queſtion whether it would anſwer the expence of labour, but cutting faggots in ſummer inſtead of winter; drying them like hay before binding, and then ſtacking and thatching for feeding ſheep. I made a ſtack of them in 1789, but the two following winters were ſo open and mild, that I could not experience the benefit. I ſhall, however, make other trials on the practice, for I

* *Obſerv. ſur L'Agricult. par Monſ. Varenne de Fenille*, p. 270.

† *Chanvalon Manuel des Champs.* 12mo. p. 363.

‡ *See alſo Mem. de la Soc. Roy. d'Ag. de Paris.* 1785. *Trimeſtre d'eté.* p. 22.

have

have not the leaſt doubt of its anſwering as well here as in France. Leaves are very nouriſhing, but aſtringent, and wholeſome for ſheep, and ſuch ſtores might be got at eaſily when the ground is covered with ſnow, to the great ſaving of hay. Conſidering the immenſity of leaves that fall to waſte, in a woodland country, it is certainly an object that well deſerves attention.

Threſhing.

ROUSSILLON.—LANGUEDOC.—Through all the ſouthern parts of this province, they tread out the corn with horſes and mules; a man in the centre of the threſhing floor, in the open air, drives them round, and other men ſupply the floor, and clear away the ſtraw. In ſome converſation I had on this method, between Narbonne and Niſſau, I was aſſured that it was far preferable to the uſe of flails. That twenty-four mules or horſes, and twelve men, would *depiqué*, as they term it, one hundred and fifty ſeptiers of wheat in a day. That ſome farms produce two thouſand ſeptiers of corn; what would flails do for ſuch a quantity? I examined the wheat, and did not find it more damaged than with flails; but the climate is to be remembered, which makes the grain much harder than any with us. Seeing ſome flails going alſo, I demanded the reaſon, and was told that the maſter would ſometimes have particular parcels of ſtraw threſhed ſo, to get the corn that was left in it, if he ſuſpected too much; at others the labourers deſire to do it for themſelves, which is ſometimes granted.

DAUPHINE'.—*Loriol.*—But Monſ. Faujas de St. Fond has tried threſhing the corn all at once with flails, and finds it much better than with horſes, &c.

Monrejeau to Lann Maiſon.—The oats are all mown *to* the ſtanding corn; one woman follows each ſcythe, gathers and lays them in gavels, ready to be bound afterwards in ſheaves.

Orange to Avignon.—The ſame method of threſhing with horſes, &c. prevails here; and they ſtack their ſtraw very neatly, plaſtering at top with white clay, mixed with ſtraw and water

PROVENCE.—*La Tour d'Aigues.*—Seeing a large quantity of the Preſident's wheat ſpread on cloths, for drying in the ſun, and inquiring what it meant, I found it was waſhed, as all is, of which the beſt bread is made; owing, beyond all doubt, to the mode of threſhing, which renders it ſo foul that this operation is neceſſary.

CHAP. XXIX.—*Of Tillage, and the Implements of Huſbandry in France.*

NOT an object of the firſt conſequence, but of too much importance to be neglected by a farming traveller. In a climate in which the ſun has power to burn up weeds, with only a ſcratching of the ſoil, and in a territory where harſh, obſtinate, churliſh clays are almoſt unknown, perfection of implements, and great powers of tillage, are not ſo neceſſary as in the leſs favourable climate and ſoil of England.

Of the Tillage, and Laying of Lands.

PICARDIE.—*Calais.*—Lands well and ſtraight ploughed; three horſes.

Montreuil.—All turn-wreſt ploughs; which, from having two breaſts, go alone almoſt as well as with holding; I ſaw a man leave his plough to chat with the driver of a load of bark, and the five horſes went on and performed their work as well without as with him: the double breaſt occaſions the cutting double work. The man, while

while I held it for a bout, told me that his maſter expected him to plough 30 meaſures thrice in the ſummer.

Bernay.—A pair of horſes.

Abbeville.—Very badly, with four aſſes or two horſes. Feed their aſſes with hay and oats.

Piquigny.—Women ploughing with a pair of horſes.

PAYS DE BEAUCE.—*Toury.*—Do not give their firſt ſtirring to their fallows until May. Plough well, ſtraight, and clean.

SOLOGNE.—*La Ferté.* Plough their poor ſands all on three feet ridges; and aſſert that without them they ſhould get no corn, as they preſerve the ſand from plaſtering in rains: this is an odd idea, as plaſtering ſuch ſharp ſand is uſually a means of improvement; but ſhowers here certainly fall with much greater violence than with us; their crops, however, are ſo beggarly as to give no weight to their opinions. Their teams of horſes are kept out all the year, as they have the paſturage of the landlord's woods for them. What a barbarous ſyſtem! Plough an arpent a day with three. Plough alſo with ſix oxen, and this in ſand.

To La Motte Beuvron.—Plough with eight bullocks, and on ſand! Buck wheat is given before winter, mixed with oats; if alone, before it has had a ſweat, it gives the cholic; but afterwards, alone ſafely.

Nonan le Fuſilier.—For two years paſt, chaff cut at the poſt, of rye ſtraw, mixed with buckwheat, for horſes, and found excellent: the ſcarcity of forage alone drove them to this uſeful experiment.

La Loge.—Through all Sologne the land is ploughed on to the two-bout ridge of three feet, and they never ſtir it in any other way.

Salbris.—Plough their ſandy gravels with ſix to eight oxen, that are pretty good, selling for ſix or ſeven louis each.

BERRY.—*Verſon.*—Tillage all done with oxen, harneſſed by the horns; a pair draw a plough; ſome are not bigger than our Alderney cows; the furrow about four inches deep, but hardly to be called a furrow, ſo irregularly and ill cut. They are now ploughing up oat ſtubbles for wheat; an Engliſhman can hardly conceive what work they make; they give four of theſe wretched ſcratchings for every crop.

NORMANDIE.—*Argentan.*—Wretched ploughs drawn by four oxen.

LIMOUSIN.—*Limoges.*—Plough throughout the province with oxen or cows, harneſſed by the horns.

QUERCY.—*Pellecoy.*—Walked from the road to a peaſant at plough with two cows, about as big as Alderneys; it is not poſſible for an Engliſh farmer to conceive how badly; trenches three and a half or four inches broad, and two deep, were ſcratched parallel to each other, and the earth driven aſide by two mould boards, ſome one way, ſome another; no coulter to the plough: they do about an Engliſh rood a day. A team, where there are no ſtones, and a Kentiſh nidget, where there are, would do the work much more effectually, and ten times as quickly. But their burning ſun deſtroys weeds better than ſuch tillage. Their hoeing is excellent and effective, and to this their crops are more owing than to their ploughing.

Cauſſade.—The lands ploughed as ſtraight as in Suffolk; all by oxen or cows.

LANGUEDOC.—*Montauban.*—Plough with oxen, without either reins or driver.

Toulouſe to St. Lyce.—The ploughs better, the mould boards being larger. The fields are thrown into ſtetches or flat lands. Ploughs are ox-hoeing the vines, each ox walking an interval with a row between them, and yoked with a ſliding yoke, to vary the diſtance from

from ox to ox, and baſkets at their mouths to prevent their biting the vines. The rows at five feet, and the plants at two.

Bangeres de Luchon.—They ox-hoe the rows of their maize. All oxen yoked by the horns.

ROUSSILLON.—*Bellegard to Perpigan.*—Plough with mules yoked; alſo with aſſes in the ſame way. Earth-boards of the ploughs are to the left.

Ria.—Day's work of a man, his plough and team, 3 livres.

LANGUEDOC.—*Narbonne.*—Of many ploughs now going (July) moſt are drawn by mules in yokes; the plough beam faſtened to the centre of the yoke; earth-board to the left. They plough well.

Pezenas to Montpellier.—The oxen all yoked by the horns. Ploughing olive grounds with one horſe; the plough of an odd conſtruction, the beam dividing and forming ſhafts for the horſe.

BEARN.—*Pau to Moneins and Navareins.*—All this country is ploughed with oxen that are good, and in good order.

GUIENNE.—*Agen to Aiguillon.*—Plough with very fine cream-coloured oxen, a pair to a plough. All draw by their horns.

Tonneins.—A pair of very fine oxen plough a journal a day; that meaſure contains 33,750 ſquare feet, and is to the Engliſh acre as 33 to 38. The plough beams all faſten to the yokes.

To La Motte Landron.—They are now (Auguſt) ploughing for *jarouche* and forage, (by the laſt is meant oats for ſoiling), and are very attentive in the ordering and finiſhing their lands, and covering the ſeed; breaking the clods with a wooden beetle and rake, ſo that the high ridges are brought down in ſuch a manner as to admit the ſcythe, and at the ſame time the furrows are kept open.

Barſac.—They are now ox-hoeing their vines quite clean; and ſee one piece of oſiers ox-hoed.

POITOU.—A pair of oxen without either driver or reins.

TOURAINE.—*Montbazon.*—Horſe ploughs; ſaddles on the horſes with a bar like a curricle, one from ſaddle to ſaddle, to which the beam of the plough attaches. A bad plan, as by this means the horſe does not draw from his ſhoulders, where his ſtrength and weight lie.

SOLOGNE.—*Chambord.*—The poor ſands of this country are laid on the three feet ridge of two-bouts, and rye and buckwheat ſown on them; the furrows are as wide as the ridges, and yield nothing but weeds.

La Chapelle La Reine.—Plough with two horſes, and no driver, yet the price per arpent is 5 livres, one hundred perch twenty-two feet.

ISLE OF FRANCE.—*Mellun.*—Plough into broad flat lands, and very ſtraight. Many ploughs with three horſes, one before a pair; no driver.

Liancourt.—In the general arrangement of their farms, they reckon three horſes to a plough, though they never uſe more than two at a time; and a plough to ſeventy-five arpents (one and a quarter acre), twenty-five of which are fallow; and a common calculation here is 1500 livres rent per plough, which makes 20 livres per arpent. They never uſed oxen until the Duke of Liancourt introduced them from England.

Paris to Villers Coterets.—The whole way the lands are ploughed quite flat, with a turn-wreſt wheel-plough, and much of the wheat is overflowed, for want of furrows to carry off the water from the late rains.

PICARDIE.—*La Fere.*—Four horſes in the ploughs, and no driver.

St. Quentin to Cambray.—Thirty-five horſes to a farm of eight hundred ſeptiers; and twenty horſes on one of four hundred. The latter proportion is ſeventeen on four hundred Engliſh acres.

FLANDERS.—*St. Amand.*—This ſeaſon (November 1, 1787) the wheat here, owing to the exceſſive rains, is put in as badly as poſſible. The loweſt and wetteſt fields are perfectly flat, and half of them, in parts, overflowed. Furrows are drawn, as marks for digging, which is doing, through all the country, with a narrow ſpade of five inches wide, and eight long; theſe furrows are from ſix to eight yards aſunder, but done poorly, miſerably crooked, and the whole unſightly.

Lille.—There is a minutia of labour and attention given to land in this country, which muſt, in the nature of things, reſult from that over-population, which is found every where in France on ſmall properties. I ſaw many men and women hoeing up the land with great mattock-hoes, almoſt a foot ſquare, with long handles; by which they are lifted high, that in the fall they may cut four or five inches deep. They work by lines that mark out beds, five or ſix feet broad, along which other men dig out trenches, a full ſpit deep, ſpreading the earth over the beds. Wheat ſeed is then ſown, and covered by a man's drawing a wooden harrow over it: another follows with a hoe to cut clods, and level inequalities. I calculated in my mind what this would coſt me in Suffolk, and I made it amount to 3l. 10s. per Engliſh acre. Such operoſe methods are not in practice here, becauſe the labour which comes to market is cheap, ſince ſuch labour, like every thing elſe in Flanders, is what is commonly called dear: it ſprings alone from the population that is attached to the poſſeſſion of land in property; and is, relative to any other country, a ſyſtem of trifling; a waſte of labour not greatly better than picking ſtraws. Perhaps it is owing to this over-population of the fields, that Flanders, with the richeſt ſoil in Europe, cannot feed her own towns, but is forced to import large quantities of wheat from Artois and Picardie, where large farms enable thoſe provinces to ſpare to the wants of their more ſubdivided neighbour.

About four or five miles from Lille begins another method of laying their lands; it is that of ploughing them up in very broad high arched beds, of all breadths from four rods to ten or twelve. When incloſures are ſmall, a whole one is formed into but one land; and in larger fields, there is a drain left at every parting furrow, which is either planted with a row of alders or willows, or dug into a trench and laid to graſs. In a land ten or twelve rod wide, the centres may riſe four or five feet higher than the bottoms of the furrows; the ſlopes on each ſide very gentle and regular; and ſo equal, that all water is effectually drained off. I diſcourſed with ſome farmers on this method, ſtating objections and hearing their anſwers. They inſiſt that no other method of laying land dry is ſo effective, cheap, durable, or commodious. That all the methods I mentioned are known and practiſed in ſome part or other of Flanders, but that all the beſt huſbandmen have one opinion, are united in thinking this mode ſuperior to all others. That planting alders or willows (which are always kept low by conſtant cuttings), or having graſs in the furrows, are not neceſſary parts of the ſyſtem, and that the furrows, in a few years after throwing up the lands, are as good as the reſt of the field. The neatneſs and regularity with which the ſyſtem is executed, is extraordinary; the borders, headlands, and ſides of the fields, are ſo dug away, that a ſmall one has the form of a feather-bed, the feathers of which are driven towards the middle. I never ſaw this ſyſtem ſo well executed as here, though I have known it copied in England; not in the highlands of many of our counties, which are on compariſon a barbarous method, but in the practice of a few individuals who had ſeen the effect in Flanders.

Armentieres.

Armentieres.—Paſſing this town, meet with another exertion of induſtry, that deſerves attention. Many ſtubbles were ploughed into beds eight or ten feet wide, and the furrows digging out, and the earth ſpreading on the beds. I ſuppoſed this was for wheat, but on inquiry found that theſe fields were intended for beans. They leave the land, thus prepared, till March, and then plant without further tillage. As ſpring tillage is thus avoided on wet land, the ſyſtem muſt be admitted to be excellent.

Mont Caſſel to Berg.—The lands not raiſed ſo high as thoſe above deſcribed, nor with equal ſkill or attention, and this wet ſeaſon (November) ſhews the conſequence of it; they cannot get on to their lands to ſow wheat, but moſt of the high lands are ſown, and ſome of them green.

ARTOIS.—*Lillers to Bethune.*—The lands broad and arched; but gently. From Ardres to Bethune, all the way, the greateſt attention to plough the land the moment the corn is carried, yet much is now uncut and ripe.

To Arras.—They are now (Auguſt 8,) ploughing the ſtubbles of ſuch corn as is carried, with one horſe, that walks, not in the furrow, but on the unploughed land, by the ſide of it: the plough beam very ſhort, with a foot; no coulter; a well-curved breaſt and throat; but too wide in the heel: ſtir ſhallow, and do not make good work; do about a meaſure a day.

NORMANDY.—*Rouen.*—All the harrowing is done in this country by men leading many horſes. I ſaw one man leading ſeven horſes, each drawing a harrow: the horſes are tied one behind another, obliquely, ſo as to be out of danger of the harrows.

BRETAGNE.—*Rennes.*—Plough with four horſes and a driver; or two horſes and two oxen.

Vannes.—The common plough team, two oxen; always harneſſed by the horns, and a little horſe, a mere poney, before them; if no horſe, the oxen are led by a woman. They uſe aukward, ill made, but light, wheel-ploughs.

Auvergnac.—The farmers (metayers) have here the Eſſex cuſtom of digging away the borders and margins of all arable fields, and carrying them on to the land, which they practiſe very exactly, as it is done in that county.

ANJOU.—*Migniame.*—They plough deeper, in common, than ever I ſaw in any part of either England or France; eight or nine, and even ten inches deep; uſing ſix or eight good oxen of the Poitou breed; but it is done, in one reſpect, badly,—their depth obliges them to carry a furrow a foot wide, yet their ſhare is not ſix inches; and they do every thing on four-feet ridge-work. The great ſtrength of the team is moſt wanted for the roots of the fern, which are now lying about the land in heaps.

La Fleche to Le Mans.—They are now ploughing ſand land, very ſlowly, with four bullocks and two horſes. Prepoſterous!

NORMANDY.—*Beaumont.*—Two bullocks and two horſes, to draw thirty buſhels of dung.

To Alençon.—Plough with four or ſix bullocks, or horſes, and a driver.

Bernay.—Wheel-ploughs; with two horſes, and no driver. The rich loams here are on broad lands, very well arched.

Toſtes.—Wheel-ploughs; three horſes, and no driver.

To Dieppe.—Ditto; well ploughed, flat and deep.

BRIE.—*Neuf Moutier.*—Monſ. Gibert, a conſiderable farmer and proprietor, keeps fifteen horſes for three hundred arpents of rich loamy clay (three hundred and ſeventy five acres Engliſh).

CHAMPAGNE.—*Chalons to Ove.*—Plough with one horſe.

To St. Menehould.—Plough with four horſes, without a driver; turn-wreſt ploughs.

LORRAINE.—*Marſ-la Tour to Metz.*—Fallows dunged, after ploughing with ſix horſes (July).

Luneville to Blamont.—Broad lands, and ſome arched, but no water-cuts, conſequently the crops much damaged, whenever rain falls. Plough with four, ſix, and eight horſes, cows, and oxen; all mixed ſometimes. I have ſeen women holding the plough, and a boy driving: wheels, but not turn-wreſt.

ALSACE.—*Saverne to Wilteim.*—Here is a remarkable cuſtom, of both waggons and ploughs being driven by poſtillions.

To Straſbourg.—The lands broad and arched, as in Flanders.

To Scheleſtat.—The ſame lands on the flat rich vale.

Colmar to Iſſenheim —Oxen here improve much on the preceding country: they are harneſſed by the horns, drawing ſingly in lines, and alſo mixed with horſes.

To Béfort.—Plough with a pair of oxen, without line or driver. Arched broad lands.

BOURGOGNE.—*Dijon.*—Plough with ſix horſes.

Bourbon Lancy.—Plough with ſix oxen, that draw by the horns. A level country; a ſandy gravel.

BOURBONNOIS.—*Chavannes.*—All the arable thrown into one bout-ridges, about ſixteen inches broad.

AUVERGNE.—*Riom to Clermont.*—Plough with a pair of oxen.

Clermont to Iſſoire.—Ploughing with oxen only; ſome of them good; all draw by the horns.

Fix to Le Puy.—Miſerable ploughing; the plough has one long handle; and the man holds a long light pole in the other hand for a goad: a pair of little oxen.

DAUPHINE'.—*Montélimart.*—Plough with two mules.

There is no part of England where lands are laid ſo neatly as in Flanders; but the French have no other province that partakes of this perfection; Alſace is in a ſimilar ſyſtem, but not ſo well executed. In general the tillage of the kingdom is moſt miſerably performed; and many of the provinces are, in this reſpect, ſo backward, that to Engliſh eyes they appear to be pitiably conducted.

The principal queſtion that ariſes upon tillage is the comparative advantage of uſing horſes or oxen. Both have had their advocates. The principal opponents to oxen were the *œconomiſtes*, that fanciful ſect, of very worthy and ingenious men, who, from their chambers at Paris and Verſailles, offered opinions upon every part of the farmer's buſineſs. They divided the arable lands of France into thoſe managed in the great and little culture: in the former the tillage done with horſes, and in the latter, with oxen; and as Flanders, Picardy, Normandy, &c. where horſes were in uſe, being alſo let at money rent, thoſe provinces were neceſſarily more at their eaſe than Sologne, Berry, Limouſin, and others in the hands of metayers. This compariſon is often made in the writings of the *œconomiſtes*, and abundantly more ſtreſs laid on the nature of the team than it deſerves; they gave many calculations to ſhow, that horſes were more advantageous, but all founded on falſe data; for they allowed only two horſes to a plough, but four or ſix oxen, forgetting that in Guienne, Quercy, part of Languedoc, &c. a pair of oxen plough as well as any pair of horſes; an omiſſion this the more extraordinary, becauſe thoſe provinces are among the beſt cultivated in France: the diſtrict of the Garonne is like a garden, and the oxen large, vigorous, beautiful, and in fine order, the very contrary of the miſerable half ſtarved beaſts, deſcribed by the

Marquis

Marquis de Mirabeau, Monſ. Du Pont, Du Queſnay, and other *œconomiſtes*. The compariſon has been made in England with great accuracy; and the opinion now is, that oxen are the moſt beneficial and the moſt profitable, and that a pair of good oxen will plough as much in a day as a pair of good horſes. The other œconomical points of the compariſon are all in favour of oxen.

But though the ſuperiority, both in ſaving to the farmer, and in national benefit, is clearly in favour of oxen, yet there want improvements to be made in training and working them. Some ſtep well, and move with as much freedom and activity on a walk as horſes, but this is not the caſe with the generality; they are trained to go too ſlowly, and demand, *for light work*, more hours than horſes. This is certainly owing to negligence and idleneſs of workmen and farming ſervants, for I am well perſuaded, from circumſtances I have remarked in them, that they are capable of great activity and quick motion. I have had them of a large ſize, which have taken leaps that no horſe in the world would attempt, a proof not of activity only, but of great muſcular ſtrength.

Accuſtoming them to more ſpeed, even to a trot of five or ſix miles an hour, is certainly as practicable, in the cool climates of Europe, as it can be in the burning ones of Aſia. The fact that they draw coaches at that rate, in the Eaſt Indies, ſeems to have been long aſcertained. The Targuzinian Tartars ride on their oxen *: the Nogayan Tartars, of Koundour, do the ſame †: Mandelſloe ‡ rode on an ox part of the way from Agra to Delhi, that carried him ſeven leagues in four hours: in Kachemire they ſaddle, bridle, ſhoe, and ride them as faſt as horſes §; they alſo draw their coaches: at Surat, in riding them, they take care their horns are not more than one foot long, to avoid being ſtruck when flies bite; they never ſhoe them but in rough places; in the caravan from that city, they carry three hundred to three hundred and fifty pounds ‖: a camel carries nine hundred to one thouſand pounds ¶: but in a late account, of great authenticity, five hundred and ſix hundred pounds is mentioned as the common load of a camel in croſſing the Arabian deſarts **: the hackrees, a ſort of coach, is drawn in Hindoſtan by oxen; which, when well trained and managed, will maintain their rate againſt horſes at full trot; thoſe of Guzerat and Cambray are as large as Lincoln beaſts, and white ††: the oxen that are rode in Formoſa, go as well and as expeditiouſly as the beſt horſes, by being trained young ‡‡: the Hottentots train oxen to gallop and even run down an elk §§.

If ſuch quickneſs of movement could be given to the oxen of France and England, it would be a very conſiderable object, for it would get over the principal objection to them, and would at the ſame time render them applicable to a great variety of uſes, to which at preſent they are never put.

Of the Implements of Huſbandry.

PICARDIE.—The harrow teeth of wood, all the way from Calais to Clermont. Turn-wreſt ploughs, and bad.

* *Grandt Ides. Harris' Voyages.* vol. ii. p. 936. † *Ruſſia; an Account of all the Nations which compoſe that Empire*, 8vo. 1780. vol. ii. p. 85. ‡ *Harris*, vol i. p. 764. § *Ib.* p. 814. and *Le Blanc's Travels*, p. 54. ‖ *Harris*, vol. i. p. 827. ¶ *Ib.* vol. ii. p. 883.
** *Phil. Tranſ.* vol. lxxxi. part. 2. p. 136. †† *Groſe's Voyage to the Eaſt Indies*, p. 249.
‡‡ *Grozier's General Deſcription of China*, 8vo. vol. i. p. 226.
§§ *Sparman's Cape of Good Hope*, 4to. vol. i. p. 230.

SOLOGNE.—The ploughs have all a broad double finned ſhare, and double mould-boards, with wheels; the whole ill conſtructed.

BERRY.—The plough very ill made; it has two ſcraps of ſomething like mould-boards, and a long ground-reſt, at the end of which is an iron ſhare, four inches wide, ſomething like the ſhim which they uſe in Kent for earthing up beans: a hole for a coulter, but I ſaw none uſed. Nothing can be worſe than its work. They have alſo turn-wreſt ploughs, ſomething like thoſe of Kent, but bad. Beyond Argenton, the beam of the plough faſtens to the yoke of the oxen; the plough has a chiſſel-reſt and point, and no other mould-board than two ſmall ſticks, ſtuck in it, with a circularly bent one behind; theſe ſticks anſwered the purpoſe of two mould-boards, but very badly; the handles ſo low, that the body of the ploughman is in a bent poſition to hold them.

LIMOUSIN.—The ploughs which I ſaw near St. George, &c. have one mould-board on the left ſide; the ſhare long, and one and a half inch broad; the beam reaches to the yoke, and conſequently ſaves traices. They plough better than in La Marche.

QUERCY.—The ſame long beams to ploughs that reach to the yoke; have two very bad mould-boards; the ſhare long and narrow, with no coulter; but the land exceſſively ſtoney.

LANGUEDOC.—*Montauban to Touloufe.*—The plough much better than many I have ſeen in France; it has a broad coulter, and a ſhort noſed ſhare; one mould-board, and that to the left; the plough beam, like many others, fixes to the ox-yoke.

To Noe.—Meet waggons for the firſt time; the wheels ſhod with wood, that is, wood upon wood. The oxen all cloathed with linen againſt the flies, one tape under the tail and another round the neck. The price of theſe waggons new is 60 livres (2l. 12s. 6d.); they carry, with a pair of oxen, two caſks of wine, containing four barriques, which is twenty quintals, or about a ton Engliſh. Some pairs of oxen will draw forty quintals.

GUIENNE.—*Tonneins.*—The ploughs have very long hollow or fluted mould-boards for lifting the furrow, in order to make ſharp high two-bout ridges.

ANGOUMOIS.—*Barbeſieux.*—Wheel-ploughs.

ISLE DE FRANCE.—*Melun.*—Large heavy wheel-ploughs, with breaſts as wide and thick in the throat, as the heel is broad; muſt go very heavy for the horſes.

Commerle.—Wheel-ploughs drawn by a pair of horſes.

Dugny.—One of the beſt implements I ſaw in France, was the chaff-cutter of Monſ. Cretté de Paleuel; it conſiſted of two cylinders, with edges that worked into the vacancies of each other, and, ſucking in the ſtraw delivered very rapidly, cut it into coarſe chaff; one man fed the machine, by ſpreading the ſtraw on an inclined plane; and a boy drove a ſingle horſe, which turned the machine. A tolerable mechanic, improving on the idea, would produce a much more powerful cutter than any yet invented.

FLANDERS.—*Lille.*—Many waggons loaded with chalk ſtones, &c. with the principal part of the load laid on the hind wheels, and a very ſmall portion on the fore ones; a good ſenſe that reproaches our barbarians in England.

ARTOIS.—The ſhort ſcythe which they uſe through this province, and all over Flanders, is one of the moſt uſeful implements that can be ſeen: they call it the *pique*: it is much like the repreſentation given by Mr. Walker in the Annals of Agriculture, only the handle here is much ſhorter; a man cuts an arpent a day in general with it, and ſometimes more; he cuts and rolls into bottes an arpent of vetches; (called here, mixed with oats, *dravin*;) and he cuts an arpent of any ſort of white corn, others following to bind with ſtraw bands made at home. This is a moſt œconomical ſyſtem. The ſhort handle of the pique is made to reſt againſt the elbow; he holds it with the right hand only, or rather

rather hand and arm; and in his left he has a ſtick with a hook at the end of it, with which he draws or holds the corn in the right poſition to receive the ſtroke. They uſe ſcythes and cradles alſo for ſome works.

St. Omer.—That the pique is much eaſier to work than a ſcythe, appears from women and even girls cutting ſtout crops of tares with it. They give 45*ſ.* per meaſure of oats for cutting with the pique, and a man does three-fourths per day.

NORMANDIE.—*Harfleur.*—I noticed here, what I may have often paſſed, perhaps, without ſeeing it, a pierced roller behind and before a cart, which turns in the frame, or in the ladders, by which means a load is corded with a ſmall handſpike, almoſt in a moment; I have known ſomething like it in the ladders of carts in England, but forget where; here they let down a cart behind by raiſing the ſhafts in the air, ſet it againſt a caſk, and wind the caſk on to the cart, by means of the fore-roller, eaſily and commodiouſly.

Avranches.—Sea ſand is drawn in this country in carts, by a horſe in the ſhafts, and another to lead, with two or three oxen between, and all in a line. About Carentan they attach the rope by which they draw, to the yokes of the oxen, conſequently the horſe draws them down to the line of his own draught; and their rope to the top of the pole between the two thillers, (when they are two,) conſequently all draw the thill horſes down. A team of five, thus harneſſed, does not draw more than from twenty to twenty-four buſhels of ſea ſand: the horſes are, however, poor ſmall things; and no wonder, from the number of miſerable garran (poney) ſtallions that infeſt every ſtable you enter. The oxen are better, but not large.

BRETAGNE.—*Varades.*—They are now working their ridges, of three and four feet acroſs, with a great timber triangular machine, drawn by oxen, to anſwer the treble purpoſes of harrowing, rolling, and levelling.

ISLE OF FRANCE.—BRIE.—*Nangis.*—Wheel-ploughs, and very good, except ſingly the breadth, which is ſixteen or eighteen inches, and in narrow lands loſes a fourth; it only wants to be taken in narrower, and left with the ſhare projecting more from the throat.

CHAMPAGNE.—*Mareuil.*—Bad turn-wreſt ploughs; but have the Brie one, which they prefer when there are root weeds to cut.

Rheims.—Very light ploughs, with a broad ſhare, and one earth-broad, but ill ſet on; it has wheels on the beam which is little more than a ſtick. Women are ploughing.

To Chalons.—Many rollers every where; an implement very uncommon in France.

St. Menehould to Verdun.—Wheel ploughs that are not turn-wreſts, with well turned mould-boards. This is among the beſt ploughs I have ſeen in France.

LORRAINE.—*Mars-la-Tour to Metz.*—Broad ſhare and good, but too wide at the heel; wheels.

Pont-à Mouſſon to Nancy.—Here, for the firſt time, I met with waggons of a peculiar ſtructure, the fore wheels are within four inches as high as the hind ones, and are high enough to enable one horſe, for none are drawn by more, to convey eight hundred pounds, to one thouſand pounds. Ploughs ſo wide at the heel that they are drawn by eight horſes.

ALSACE.—All through the part of Alſace which I have ſeen, they uſe ploughs with low wheels; the ſhare round and broad, and as wide on the land ſide as on that of the furrow, which is very erroneous, for they are not turn-wreſts, but with fixed breaſts, turning the furrow to the left.

BOURBONNOIS.—*Moulins.*—The common plough a turn-wreſt one; but they have another for ſtirring, called *areau*, without an earth-board.

AUVERGNE.—*Iſſoire.*—The plough only opens a ſlight furrow, into which the earth falls again, and buries nothing, and without a hot ſun would kill nothing: the ſhare a chiſſel point, one inch wide at one end, and three inches at the other end for ſtoney land, or for that which is free, turning it occaſionally end for end. An earth-board on each ſide, but not more than four inches high.

Upon the implements in general, I may obſerve that they will in all countries be proportioned to the wealth of the farmers. There is nothing in the kingdom comparable to thoſe which we ſee in every part of England, where the implements of huſbandry are carried to a perfection of which one ſees nothing in any other country that I have viewed. The right form and powers of all inſtruments uſed in agriculture, depending very much on the application of mechanical principles, were proper objects for the attention of thoſe ſcientific men that compoſe academies; I do not know, however, that they have done any thing in this reſpect in agriculture, though ſuch great exertions have been made in manufactures and ſhip-building. At one period the ingenuity of mechanical genius in France was employed on agricultural tools; and then, as an ill ſtar would govern, nothing was thought of but drill-ploughs and horſe-hoes. Fortunately all invented were abſolutely good for nothing, which threw ſuch a diſcouragement on the practice, that the folly was but of ſhort duration; had they been better it would have laſted longer, and would have done ſo much the more miſchief; for the drill huſbandry, at its beſt efforts, is fitter to amuſe very ingenious gentlemen, who aim at great products without attending to expences; than to become the ſteady ſtaple practice of a kingdom, in the hands of men who cannot eaſily underſtand refinements; and if they could underſtand, could much leſs afford them. Adopting beneficial courſes of crops, that will allow a great increaſe of cattle and ſheep; draining, irrigating, manuring; ſuch objects are applicable to common farmers, little and great; but the refinement of drilling, applicable but to certain crops and certain ſoils, is not adapted to the maſs of huſbandmen, by whoſe more plain exertions mankind muſt be content to be fed.

CHAP. XXIX.—*Of Manures and Manuring in France.*

PICARDIE.—THROUGHOUT this province, moſt of the way from Calais to Clermont, the dung is now (May) carried out and ploughed in upon the fallows; it is in a long ſtrawy ſtate, and not one-fifth part rotten; nor half of it ploughed in.

PAYS DE BEAUCE.—*Toury.*—Many pits of white marl in this rich plain of Beauce, quite to Orleans; the fine loam four or five feet deep on it. They ſpread it on their lands, but the quantity very ſmall, nor did I ſee any ſigns of old pits.

SOLOGNE.—*La Motte Beuvron.*—The rye-ſtubbles are (May) collected in heaps on the land, having been left ſo all winter, to prepare it for rotting for manure. Surely they might find a better way of doing it; houſing their ſheep, as they do, at noon as well as night.

LIMOUSIN.—*Uſarch,*—Collect leaves to make manure with.

LANGUEDOC.—*Niſmes to Quiſſac.*—In cultivating waſtes, or old neglected pieces, they pare and burn; alſo collect turfs and clods in heaps, on faggots of box-wood, which they burn.

Lann-Maiſon to Bagnere de Bigorre.—Cut from their waſtes much fern, which they ſpread on their cultivated lands, and, ſetting fire to it, find the aſhes equal to a dunging. They alſo cart much to their ſtables and farm-yards, to make dung with.

GASCOIGNE.—*St. Palais to Anſpan.*—Paſs three or four lime-kilns, which my guide aſſures me are employed in burning for manure, to improve the waſtes that abound ſo much in this country; and I ſaw ſeveral heaps near houſes, without any ſigns of building going forward.

A general practice through theſe mountains, and almoſt to Bayonne, is that of manuring for raves, with the aſhes of burnt ſtraw. I obſerved ſeveral fields quite black; and, demanding what it was, my guide told me of this common practice here; afterwards I ſaw them ſtrewing ſtraw thickly over land, part of which had been already burnt on. They do this on a wheat-ſtubble; but not thinking that ſtubble enough is left, they add much wheat ſtraw, and ſetting fire to it, burn the weeds as well as the ſtraw, and clean as well as manure the land. With ſuch quantities of fern on all their extenſive waſtes, I aſked why they did not burn that, and keep their ſtraw? The reply was, that fern makes much better dung than ſtraw, ſo they burn the ſtraw in preference. As ſoon as the operation is over, they plough the land, and harrow it in rave ſeed. One large field, thus treated, I ſaw ploughing for that crop. They both hoe and hand-weed the raves, and have them ſometimes very large; many as big as a man's head. Uſe them for oxen.

Fleurange to Leitoure.—Chop their ſtubbles exactly as in Suffolk, driving it on with their foot: they gather it for making manure.

TOURAINE.—*St. Maure.*—Here we found a greater exertion in huſbandry than is commonly found in France, that of marling. We ſaw ſeveral large heaps of white marl, and at one of them four or five carts at work, each with three horſes. It is found almoſt every where under the country, at the depth of three to five feet; the ſoil on which they lay it, is a good loam; adheſive, but not clay. They draw it up by buckets, which is a ſingular practice for ſuch ſlight depths. The marl is in ſome pits white, in others yellowiſh, which is reckoned the beſt; it is very ſoft and fat to the touch. They ſpread twelve cart loads per arpent, of one hundred *chainé*, each twenty-five feet ſquare, ſixty-two thouſand, five hundred feet, or more than an acre and half; and it laſts good about twenty-four years. The landlords, on leaſes of nine years, pay the digging, and the tenants the carting. Of the yellowiſh ſort they do not ſpread quite ſo much as the white. The ſame account was given at Montbazon; they ſpread it on the fallows, after two ploughings; and having ploughed in the marl, manure it with dung, and ſow wheat. Make compoſts alſo of marl and dung mixed.

Orleans to Petiviers.—Under the greater part of this country there is a bed of imperfect marl, which is over the calcareous ſtone of which the roads are made. The farmers ſpread this marl on their lands, at the rate of ten *tomberaux* per arpent, which laſts twelve years; ſome, better than the reſt, has been known to laſt thirty years.

ISLE DE FRANCE.—*Liancourt.*—Within two leagues of Liancourt, there is a navigation from Paris, but no idea, in any part of the country, of bringing manures; no wonder; for they carry flour thither by land carriage; even the millers, who ſend it regularly, do the ſame.

SOISSONOIS.—*La Fere.*—A vaſt excavation made in a hill, by digging and burning peat for manure: great heaps of the aſhes now here. The price the farmers give is 22*ſ.* per meaſure, that holds ſixty pounds of wheat, fifteen of which they ſpread upon an arpent. The effect is very great on all kinds of plants. This peat is unlike any I have ſeen, reſembling an imperfect coal; and the being found, not on a plain, but on hills, for I ſaw ſeveral, and all equally on elevations, diſtinguiſh it remarkably from the peats of England. The mine of this hill is nearly exhauſted, as the common red loam of the country now appears nearly all arou

FLANDERS.

FLANDERS.—*Lille.*—See many loads of urine and night-ſoil carrying into the country, by the farmers, for manuring their lands with. It is loaded in caſks: each waggon carries ten *tonneaux* of about half an hogſhead Engliſh. They lay from ſixteen to twenty upon a *quartier* of land, at the expence of 7 livres: uſe it for cole-ſeed, wheat, flax, &c. and find it equally excellent for all ſorts of crops.

Armontieres to Montcaſſel.—Holes are dug in the ſides and corners of many fields, for receiving the urine and night-ſoil, which is brought from every town, in caſks, and kept againſt the ſeaſon when it is wanted. Some have ſmall roofs built over, to exclude the ſun, wind, and rain; and others covered with ſtraw. The moſt correct and never-ceaſing attention with which they procure and uſe this manure, deſerves the greateſt commendation.

To Berg.—A good deal of land chalked as well as dunged, and ready for wheat. The chalk is in large hard lumps, but broken and ſpread moſt curiouſly; more evenly than ever I beheld any thing ſimilar in England; where the rough and unequal manner in which marl is rather tumbled than ſpread over the ground, is a reproach even to our beſt farmers, who permit thoſe labourers, whoſe families are ſupported by poor-rates, to execute their work in that manner, to earn ten ſhillings a week inſtead of eight.

NORMANDIE.—Throughout the part of this province which I have ſeen, they gather their wheat ſtubbles, and even bundle it in ſheaves: they chop it with an inſtrument ſomething like a crooked ſcythe, fixed at the end of a handle of ſix or ſeven feet long; but do it much ſlower than in England, with a common ſcythe.

Iſigny.—Here, for the firſt time in France, I ſaw compoſts of dung and earth made.

Carentan.—Uſe ſea-ſand for manuring their paſtures, ſpreading twenty loads per *vergé*, each load twelve to ſixteen Engliſh buſhels. The *vergé* equals ninety-ſix Engliſh perches. Mix it alſo with dung.

To Coutances.—Manuring with ſea-ſand continues hither.

Avranches.—And hither they have banked out half the river, which is a ſmall arm of the ſea, in order to build a bridge; and the countrymen are digging out the blue ſea-mud, and carrying it away to conſiderable diſtances.

BRETAGNE.—*Dol to Combourg.*—Wheat-ſtubbles gathered carefully; and a great deal of fern cut now (September 1.) and in heaps.

Hèdé.—From entering Bretagne, paring and burning every where practiſed, but the heaps too large and too much burnt.

Rennes.—The farmers and gardeners buy the town dung, at 4 livres the load.

Belle-Iſle to Morlaix.—The rough land of this country is reckoned to find fuel and manure: one of the reaſons for almoſt the whole of it being in ſuch a rough ſavage ſtate. They have an execrable cuſtom, well adapted to perpetuate their deſerts, that of burning parts for aſhes, to carry to their good land.

Morlaix.—Heaps of ſhell ſand on lays, ready to ſpread for ſowing wheat; the ſame huſbandry is practiſed on our oppoſite coaſt, in Cornwall.

To Breſt.—A moſt excellent cuſtom of going round all the incloſures with an inſtrument between a ſcythe and a wood hook, for cutting up all graſs, weeds, and rubbiſh, on the banks and in the ditches, leaving them in heaps, and then carting them away for making litter and dung; a practice that cannot be too much commended.

Chateaulin.—Paring and burning, the origin of all the culture there is in Bretagne; and the ruin of the province at the ſame time. They pare two and a half and three

inches deep; and having exhauſted the aſhes by three or four crops, leave it to weeds for twenty years before it is fit to burn again.

Quimperlay.—There is here a moſt ſingular huſbandry, of which I never ſaw any traces before. It is to pare the rough land, and not to burn, put to pile it up in heaps regularly ſquare, of about twenty-five or thirty cubical yards in each, and about four of them to an acre; they are ſquared up very neatly, and then the field is left for ſome time, to cover itſelf with a new herbage, which is free from furze and broom, but not quite ſo from fern; after a time, the heaps being rotten, they are carted and ſpread, and the land cultivated. Sometimes they cultivate the land before they are ſpread, as I ſaw ſome in pieces of buckwheat. Paring and burning is alſo practiſed. This method is inferior to burning; it does not equally deſtroy grubs, vermin, and weeds; and the double carting is a conſiderable expence.

Vannes.—Theſe heaps formed in the ſpring, and many will be ſpread this year for rye. Here they conſiſt of three-fourths or ſeven-eighths of turf, pared off from every hole and corner from commons and bad fields, and carried to the good ones; and if this execrable practice is of any antiquity, it will account for the barren and wretched ſtate of the country. Every poor field is made good for nothing, and the good one cropped, in conſequence, till it is almoſt as bad. Theſe heaps continue about Vannes in amazing quantities.

ANJOU.—*Migniame.*—The common manuring, ten loads of dung, each three thouſand pounds; but not more than four of Angers dung, night-ſoil, aſhes, &c.

MAINE.—*Le Mans.*—Marl is here uſed; one hundred pipes are laid on a journal.

NORMANDIE.—*Alençon.*—Fallows all dunged, with ſquare lumps of dung, quite black, as if caſt in a mould; and very thinly, not more than ſix or ſeven loads an acre.

Leſſiniole.—Marl employed here; or rather a hardiſh imperfect chalk-ſtone; drawn up in buckets; it laſts twenty years. Stubbles cut cloſe and botted.

Bernay to Elbœuf.—Marl.

Rouen.—Monſ. Scannegatty, Profeſſor of Phyſics in the Royal Society of Agriculture here, having obſerved, that, in calcining gypſum, it was apt, for various uſes, to be unequally burnt, part being partially reduced to lime, and the reſt not ſufficiently calcined, invented a furnace for the more equal diſtribution of the heat; a vault pierced for the fuel, with a long channel beneath, for conveying air, and a door to the mouth of the furnace; at top, various holes by way of chimnies, for the ſmoke to iſſue, and which he cloſes alternately. He knows when the gypſum is ſufficiently calcined, by applying a cold bright iron to theſe holes; it is inſufficiently done while any humidity ariſes.

La Roche Guyon.—Elm leaves are found to make good dung, but not oak ones; the latter take three years to rot ſufficiently.

ISLE DE FRANCE.—*Nangis.*—There are aſs-men, who take marling to do for the farmers, at 18 livres per arpent (to Engliſh acre as 32 to 38). Monſ. de Guerchy, after water in a pond, nine crops of oats, and all good.

To Meaux.—Long dung ſpread and ſpreading now (July 2), for wheat next year.

Neuf Moutier.—Manure their rich clays with the white marl found under them; which has the appearance of conſolidated paſte. They fallow for wheat, and manure the fallows in June, with long dung almoſt in the ſtate of ſtraw; a method they contend warmly for; thinking that a greater degree of putrefaction would be loſs of quantity and virtue. But there is a circumſtance which ſeems in fact much to condemn this method; it is, that while the wheat crops are to be ranked among the fineſt in France, and would indeed make a capital figure in England, the oats and barley are wretched, in-

deed (ſoil conſidered) below contempt. Does not this ſeem to prove, that the expoſition of the manure, through the year of fallow, to the ſun, exhauſts it to the amount of the benefit which one crop would receive from it, and that the wheat has it at ſecond hand, and the ſpring corn at the third?

ALSACE.—*Straſbourg.*—Gypſum uſed as a manure for clover with ſucceſs; does beſt on clayey lands; there are mills for pounding it. It is ſaid to laſt good for ſome time; two or three boiſſeau, of thirty pounds of wheat per arpent of 24,000 feet between two and three buſhels per Engliſh acre. If a quantity is uſed it ſpoils the land. What myſteries are theſe about this manure!

Befort.—Manure with blue marl.

To Iſle.—The dunghills here are the neateſt ſpectacles I have any where ſeen; the walls of them are twiſted bands of ſtraw, cloſe and regular as a bee-hive, and ſome are covered at top with leaves and branches of trees to exclude the ſun. Admirable! Deſerving univerſal imitation.

DAUPHINE'.—*Loriol.*—Box, in this country, is cut on the mountains, for manuring vines, by burying it freſh at their roots. For mulberries alſo it is excellent. Three trees were planted at the ſame time, and in the ſame ſoil, one with box, and the other without, and there is now no compariſon between them.

M. Foujas de St. Fond has tried gypſum, on a large ſcale, on ſandy land, for ſainfoin, with great ſucceſs.

PROVENCE.—*Salon to St. Canat.*—Dead olive branches and cuttings, are piled up with clods and rubbiſh for burning, as in Catalonia.

Tour d'Aigues.—Paring and burning is practiſed every where; and, as in Ireland, in corners, holes, waſtes, and even ditches, to make heaps of manure for their cultivated lands. They are now (September) burning every where. The common opinion is very much againſt it; but the Preſident remarks that it has been practiſed here uninterruptedly, probably for two thouſand years, yet the land is no worſe than it has always been.

The importance of manuring is well underſtood in many of the French provinces: where faults are to be found, it is more for exhauſting the benefit as faſt as poſſible, than for want of knowing the operation and effect. The beſt farmers in England ſpread manures for ameliorating crops, in order that the hoe or the ſcythe may cut off the weeds that are apt to ariſe in conſequence; and as ſuch crops ſupport cattle, the more manure is ſpread the more manure is made; it is in arithmetical progreſſion; on the contrary, when it is given for exhauſting crops, as wheat or rye, the benefit is ſoon exhauſted, and the increaſe, ſo valuable in the œconomy of a farm, does not take place. By means of ſpreading the dung for thoſe crops that ſupport cattle and ſheep, the live ſtock of a farm may be always gradually increaſing; and it is impoſſible they ſhould increaſe, without the farm improving, and corn itſelf augmenting by the ratio of the product ariſing.

CHAP. XXX.—*An Engliſh Farm eſtabliſhed in France.*

AMONG the moſt intereſting obſervations which the Duke of Liancourt had made, in the various viſits he paid to England, was that of the ſuperiority to which the induſtry of that kingdom was carried beyond the practice of France; and above all, to what a degree of perfection agriculture had attained, founded on experiment, and manifeſt in an infinitely greater production of corn and of live ſtock than is to be found in almoſt any other country, extent and quality of ſoil conſidered. Impreſſed with this fact, he

had long cheriſhed the hope of introducing into his own country this ſource of increaſing wealth, flowing as well from the augmentation of produce, as from that of the people employed to raiſe it; but ſenſible at the ſame time, that the moſt uſeful innovations could be introduced by example only—a truth the more applicable to agriculture, from being practiſed by men of ſmall fortune, little or no education, and conſequently full of prejudices, and unequal to the purſuit of any practice, but that of the *beaten track*—he determined to attempt, as ſoon as it was in his power, an eſſay of Engliſh agriculture; but as he was deſirous of having his example followed, it was neceſſary that theſe eſſays ſhould be ſo conducted as to enſure ſucceſs.

His friend, Mon. de Lazowſki's reſidence during three years in England, whither he conſented to accompany the ſons of the Duke, facilitated theſe means. Mon. de Lazowſki, whom I had the pleaſure of knowing intimately, acquired that knowledge in agriculture, which much inquiry, aſſiduous application, and frequent converſation with the beſt farmers, could give to a mind very capable of, and much accuſtomed to obſervation: he was likewiſe no ſtranger to the projects of Monſ. de Liancourt; and in this inſtance, as on every occaſion, his unexampled friendſhip made him eager to ſecond his views.

In 1789, Monſ. de Liancourt, on becoming the proprietor of a large eſtate, ſituated at thirteen leagues from Paris, reſolved immediately to execute the plan he had ſo long projected: he accordingly engaged an Engliſh farmer to come over from Suffolk, with his family, and a common labourer; this Engliſh colony carried with it every kind of farming implement; they had with them likewiſe five oxen, a bull, and five cows, from Suſſex, to perpetuate that breed, if the country into which they were tranſported would admit of it; to theſe were added a Suffolk polled bull and five cows.

The farmer was placed in a farm that had hitherto yielded about two hundred pounds a year; the land was in ſome parts good, in others, bad; it was ſo divided in quality and ſituation, as to render one part fit for the reception of ſheep, and the other part for the feeding of cattle; theſe two objects were thoſe which Monſ. de Liancourt was moſt anxious to attain, in the agricultural ſyſtem he was about to introduce; becauſe they were moſt advantageous, in a country ſurrounded by great markets, and very near to that of Paris; he added a large extent of land to the farm, taken from his park, and from other farms, conſiſting of about eight hundred arpents; two hundred and fifty of which were appropriated to ſheep, and the reſt to the feeding of cattle; he deſigned to have made ſuch additions to each part, as would have enlarged the whole to fifteen hundred arpents; to which, in proceſs of time, he would have nearly dedicated the whole of his park.* Whilſt the Engliſhmen were beginning their operations, and forming the labourers of the country to the uſe of the new ſort of plough imported from England, inſtructing the common workmen as to the conſtruction of the new implements, and teaching the women ſervants of the farm the management of the dairy, the making of cheeſe, &c. Monſ. de Liancourt had ſent two young labourers, out of the environs of Liancourt, to England, who, being placed by me with good farmers in my neighbourhood, qualified themſelves to replace, at a future day, the Engliſh family, in caſe theſe ſhould grow tired of living in France, or to aſſiſt them if, as Monſ. de Liancourt hoped, they were diſpoſed to remain. The artizans of Liancourt learnt to imitate the implements, the plough and the cart brought from England, and made them very well.

To the cows from England, were added twenty four more from Normandy and Switzerland; the whole herd, a very fine one, amounted, in 1792, to a hundred and five head, and hopes were entertained of increaſing the number to three hundred, and of ſupplying them completely with a ſufficiency of food. The young beaſts were not then

of an age to allow of any deciſion being made, whether the produce of the Suffolk or Suſſex breed would beſt ſucceed, but the whole afforded the moſt flattering hopes.

With regard to the flock of ſheep—the Spaniſh ram croſſed with the ewes of Berry and the Spaniſh ewes, and the Berry ram with the Flemiſh ewes, were the two breeds deſigned to be eſtabliſhed and improved; an Engliſh ram from Romney Marſh was alſo croſſed with the Berry ewes, all of which anſwered perfectly well: the lambs were fine, but as this branch of buſineſs had been began later than the other, the proſpect of its ſucceſs, although well founded, could not be entirely aſcertained.

The lands had been put into excellent condition, in a country where incloſures were unknown; every field of the farm was incloſed by deep and broad ditches, with well planted hedges; gates were erected in all; the dry lands were irrigated, and the marſhy meadows drained, by cuts underground; old lands, for ages paſt judged incapable of yielding any produce, were burnt and rendered fruitful; the buildings on the farm were modelled to the new ſyſtem, and to the management of the culture that was introduced. The two young French labourers were returned from England, and the Engliſh farmer (Mr. Reeve), an excellent one, and a very honeſt man, ſatisfied with his ſituation, with his ſucceſs, and with the treatment he met in the country, thought only of continuing his employment, of increaſing his ſucceſs, and of ſeconding the intentions of his maſter. He was ordered to keep an exact and daily regiſter of all the buſineſs tranſacted on the farm, to ſhow it to whoever choſe to ſee it, and to anſwer all their queſtions with truth, mildneſs, and patience, but not to entice any perſon to undertake an imitation of the Engliſh method of farming; Monſ. de Liancourt thinking, that in every innovation, nothing leſs than ſelf conviction ought to actuate thoſe who attempt it; and that by raiſing their expectations too highly they riſk the ſucceſs, which ſooner or later would not fail to attend their efforts. The cows of the diſtrict were covered by the bulls of the farm whenever they were brought, and the produce from them was already found, by the people of the country, to be much finer; the culture of turnips and of cabbages, for the feed of cattle, abſolutely unknown before in the diſtrict, began to be introduced; ſome proprietors incloſed their fields; ſeveral others had made, for their own uſe, farming implements after the Engliſh model, and found them anſwer beſt the purpoſe; many more hands were employed, of all ages and of both ſexes, in the farms; the Engliſh were received with pleaſure in the country, and treated in the moſt cordial manner; every thing ſucceeded to the utmoſt wiſh, and theſe ſucceſſes were, in great meaſure, due to the indefatigable and enlightened vigilance of Monſ. de Lazowſki, whoſe heart is equal to his capacity.

The events of the 10th of Auguſt added the cruel neceſſity of forcing Monſ. de Liancourt to renounce the hope of being uſeful to his country, as he had every reaſon to expect from theſe eſſays, to the other misfortunes he has experienced from the ſame cauſe.

Agriculture was not the only object of improvement he ſought to tranſport out of England into his country; he had likewiſe began to eſtabliſh the ſpinning of cotton, a manufactory of linen, a ſtocking manufactory, and the fabrication of cards; he had engaged the different artizans in each branch from England, conſtructed buildings, and ſacrificed his gardens to theſe various eſtabliſhments; which, in 1792, already employed more than a thouſand people in the diſtrict of Liancourt; and, although yet far from having attained to perfection, they were productive of the moſt ſalutary effects to the lower ranks of people. As theſe manufactures have remained in the poſſeſſion of an Iriſhman, whom he had taken as an aſſociate, Monſ. de Liancourt conſoles himſelf with the idea, that the conſiderable ſums of money it coſt him to form theſe eſtabliſhments,

were not wholly loſt to the country he was ſo anxious to enliven and to enrich by induſtry. Theſe eſtabliſhments naturally recall to mind what the Marquis de Mirabeau, in his book *De l'Ami des Hommes*, relates of the Duke de la Rochefoucauld, the grandfather of Monſ. de Liancourt, having, in 1754, made a ſacrifice of one of the fineſt orangeries in France, and part of his park, to the inhabitants of his eſtate at Verteuil, in Angoumois, for the purpoſe of planting mulberry-trees, and raiſing of ſilk-worms, the cultivation of which was at that time ſcarcely known at Verteuil. This benevolent man had, before his death, the conſolation of ſeeing many good intentions crowned with ſucceſs; Monſ. de Liancourt, on the contrary, has the ſenſible mortification of ſeeing the good he intended to do, and which he had ſo happily begun, deſtroyed by thoſe very people for whom it was undertaken; and who, by a fatal error, in thinking to hurt him, whoſe ſole endeavours tended to their advantage, have hurt themſelves, by deſtroying an eſtabliſhment that would have been a germ of national proſperity, and was unique in France.

The deſtruction brought upon ſuch eſtabliſhments, by revolutionary anarchy, is one, among a thouſand leſſons that teach the danger, to the deareſt intereſts of the people, flowing from popular commotions. Little more remains of theſe agricultural eſtabliſhments, than the merit of having made them, a ſource of heart-felt ſatisfaction to a worthy and patriotic individual. That he may be ſpeedily reinſtated in a property, which he lived only to improve and to adorn, is the ſincere wiſh of that gratitude and friendſhip which pens this faint acknowledgment of merit.

ITALY.

Notes on the Agriculture of Lombardy.

ONE of the moſt intereſting countries in Europe, for the practice of various branches of rural œconomy, merits a much cloſer and more minute detail than is poſſible for a traveller to give, who from the nature of his purſuit can do no more than retain a few of the principal features, to point out thoſe circumſtances which demand the moſt ſtudious attention: ſome of theſe are ſo valuable, that years would not be miſpent in acquiring a complete knowledge of them. On every ſubject, except what reſpects directly practical huſbandry, the ſmall number of my inquiries is of leſs conſequence, while the pen is in the hand of my eſteemed friend, Mr. Profeſſor Symonds, whoſe elegant memoirs upon Italian agriculture * are fraught with information of unqueſtionable utility. I ſhall arrange the minutes I made in Lombardy under four heads, which will include all that I think worthy of the reader's conſideration.

I. General circumſtances of the huſbandry.
II. The management of graſs lands.
III. The management of arable lands.
IV. The encouragement or depreſſion which agriculture receives from various cauſes.

* Inſerted in the *Annals of Agriculture.*

CHAP.

CHAP. XXXI.—*General Circumſtances of the Huſbandry of Lombardy.*

LOMBARDY is one of the richeſt plains in the world; for fertility of ſoil, united with the uſe that is made of it by watering, it much exceeds every other in Europe; but for mere natural fertility, I take the plain which extends from Holland to Orleans to conſiſt of a richer ſoil, and it is alſo of a greater extent. From the foot of the Alps, near Suza, to the mouths of the Po, are about two hundred and fifty miles, and the breadth of this noble plain varies from fifty to one hundred, containing, probably, about fifteen thouſand ſquare miles. The Po bends its ſtately courſe through the whole extent, its branches ramifying, in innumerable ſtreams, from the Alps on one ſide, and from the Appenines on the other; the prodigious extent of the former range, covered with eternal ſnows, afford a vaſt ſupply of water, preſerved moſt conveniently in thoſe immenſe reſervoirs the Lago Moggiore, Lugano, Como, Iſeo, Guarda, whoſe waters are the origin of the greater part of the irrigations of Lombardy. But in the Appenines there are no ſuch reſervoirs, nor any extent of ſnow ſimilar to that of the Alps. Thus the ſpace watered to the north of the Po, is probably ten times more conſiderable than that to the ſouth of the ſame river.

The ſoil of Lombardy is, wherever I viewed it, either ſand, gravel, or loam. I met with none, or at leaſt, with very little clay (ſpeaking always as a farmer, and not as a naturaliſt), and no chalk.

Under this head I ſhall inſert the notes I took concerning—1, ſoil; 2, climate; 3, incloſures; 4, farms and tenantry; 5, rent and price of land.

SECT. I.—*Of Soil.*

PIEDMONT.—After paſſing the Alps from Nice, and deſcending towards Coni, in the level and fertile vale of Piedmont, the ſoil is every where a rich ſandy loam, with ſmall appearance of clay. Wherever rivers, or rather torrents are found, we ſee great tracts of ſtone and ſhingle, which were brought by the water from the mountains. The Dora Baltia offers this ſpectacle; from that river to Ciglione, are plains and waſtes of gravel. The rice country of Verceil is a ſandy loam. The diſtrict of the Seſia is gravel. The Teſin is the ſame. The gravels of Piedmont are all full of round ſtones, from the ſize of an egg to that of twice a man's fiſt.

MILANESE.—In the way from Milan to Pavia, great tracts of gravel, which would not be very valuable without water. To the north of the city, about Mozzatta, &c. they have two ſoils chiefly,—a ſtrong loam, a little clayey, blackiſh, and free from ſtones; and a gravel mixed with loam, ſome blackiſh, dries quickly, and always looſe. The Lodizan is a loamy ſand, or loamy gravel *.

STATE OF VENICE.—The whole way from Vaprio to Verona, there are very great tracts of gravelly loams; there are alſo ſome ſandy ones; the ſoil naturally is not deep or rich, though there are tracts that merit both thoſe epithets. The territory of Verona is, in general, indifferent, and would not be of great value, were it not for water, and much induſtry. The beſt meadows and rice-grounds not more than nine inches deep on ſtone and gravel. For ſome miles from Verona, the ſtoney

* The Lodizan ſoil is termed, by the Italian writers, *oriola*; a blackiſh ſand, mixed with clay. The Gera d'Adda of *geriva*, a gravel, compoſed of ſand and reddiſh gravel, with a little clay. The Cremoneſe, a red feruginous earth. Sand and gravel every where. *Atti di Milano*, tom. ii. p. 163.

gravel

gravel continues; but towards Vicenza, much fine red and brown, deep, friable, ſandy loam, with few or no ſtones.

ECCLESIASTICAL STATE.—FERRARESE.—In the Ferrareſe, between Paſſo Siene and Bologna, the ſoil is two feet deep; of a brown ſandy loam, with a yelloviſh hue under which is one foot of ſand, and then blue clay, apparently ferruginous. In cutting, not long ago, through a field, for raiſing a bank, they met with a heap of ancient bricks, five feet deep. From Ferrara to Bologna, the ſoil is, to all appearance, the richeſt I ever beheld; deep, friable, and with that degree of tenacity which marks great fertility; it ſeems to be entirely a depoſition of waters, that have brought thoſe fine particles which are held ſuſpended, and which render that fluid turbid: thoſe almoſt impalpable particles which are long in ſubſiding.

TUSCANY.—All I ſaw of this territory is a rockey ſtone braſh, or gravel. The loams are compounds of it, with more or leſs vegetable mould; I ſaw ſcarcely any tracts, large enough to be worth mentioning, that are exceptions. It is, upon the whole, though improveable, not a fertile ſoil; and, if olives were not well adapted to it, would be productive of little beſide ſheep-walk; to which animal, all I ſaw of this country, is admirably adapted, and would, I doubt not, produce as fine wool as Spain itſelf.

MODENA AND PARMA.—A rich ſandy or gravelly loam is predominant through theſe dutchies; in many tracts it is deep, moiſt, and friable, as I ſaw in the lands which were receiving their autumnal preparation for beans in the ſpring. In ſome diſtricts it is of a firm texture, but not clay. Much the ſame ſoil, but not equally deep, is found in the ceded provinces of Vogara, Tortona, and Alexandria; but parts of the laſt more tenacious, and to be ranked among the ſtiffeſt I met with in Lombardy.

SECT. II.—*Climate.*

ON the climate of Lombardy, Mr. Profeſſor Symonds is ſo full and ſatisfactory, that the reader can be no where ſo well inſtructed.

PIEDMONT.—The great complaint in Piedmont, is the exceſſive heat in ſummer; equal, I was aſſured, to almoſt any that is felt on the globe, and of a ſuffocating quality; while the froſts in winter are as ſevere, in the contrary extreme. The peſtiferous climate of Sardinia is known to every body; though between 39 and 41 degrees latitude; in the ſouthern part of the iſland, they are not forwarder than in the Milaneſe: they cut their corn in the north part in July: in the Milaneſe before the end of June *.

MILANESE.—The moſt remarkable circumſtance in the climate of the Milaneſe, is the mildneſs and warmth of northern and mountainous tracts, and the ſeverity felt in the plain. This fact is found particularly around the lake of Como; upon all the weſtern coaſt of that lake, which is about forty miles long, the *agrumi*, as the Italians call oranges, lemons, &c. are found, expoſed to the open air, in good perfection; yet the whole of the lake is bounded by the high Alps, which, immediately to the north, are covered with eternal ſnows. On the rich plain of Milan, and thence to the Appenines, no ſuch plant can be left expoſed; olives are not ſeen, and oranges, lemons, and bergamots, muſt be covered in winter. Theſe *agrumi* are found chiefly on the weſt coaſt of the lake, but ſome are ſcattered on the eaſtern. It is the ſhelter afforded by the

* *Riſorgimento della Sardegna*, tom. i. p. 155.

mountains

mountains, in peculiar poſitions, that has this effect. The ſame circumſtance is found in the Lago Maggiore, where the famous Borromean Iſlands are covered with *agrumi*. In all the Miſaneſe, dry ſummers for corn (I believe it is the ſame every where in Europe) are moſt productive *.

In an experiment made at Vicenza, in the Venetian State, by the Academia Agraria of this city, they ſowed wheat October 18, 1787; came up the 28th; the ears appeared May 2, 1788; the flowers May 13; reaped June 19.

TUSCANY.—I was at Florence the beginning of November, and the ice was four inches thick; a ſeverity never yet known in England. The Engliſh were, at the ſame time, ſkating at Rome.

One-fifth of all the productions of the earth are calculated to be deſtroyed by hail and other accidents.

PARMA.—In the management of the vines in the Parmazan, there is a practice which ſhews the conſtant dread of ſevere froſts. All the vines are now (in November) turned down, and the end ſhoots buried † in the earth to preſerve them; yet in a wet ſeaſon they ſuffer by this treatment, as well as in all ſeaſons, by being ſtript from the trees, in order to undergo this operation.

Mr. Profeſſor Symonds, in the excellent paper quoted above, removed the common erroneous idea of the fine climate of Italy; I made many inquiries concerning the leading facts, and have every reaſon to believe, that it is in point of health and agreeableneſs, one of the worſt climates in the world: with the views of a farmer, however, it muſt be confeſſed, that the productions which the whole peninſula owes to its climate are very valuable; to omit ſpeaking of Sicily or Naples, I may remark, that planting the poor braſhy hills of Tuſcany with olives is an advantage unequalled by any thing to be met with in the north of Europe; that the produce of ſilk throughout Lombardy is an object of the firſt importance—That rice is found to be an article of almoſt unrivalled profit—That the productive ſtate of the meadows is indebted almoſt as much to the heat of the ſummers, as to the plenty of water; and, for any thing I know to the contrary, the admirable quality of the cheeſe alſo. Theſe are all objects of great magnitude, and entirely derived from climate.

SECT. III.—*Incloſures.*

PIEDMONT.—It is not very eaſy, in many parts of Piedmont, to pronounce, on a ſuperficial view, whether the country be open or incloſed; but, on a nearer inſpection, the

* The ſame remark was made long ago, in 1540;

MDXL Extructum
Annus his biſſextilis fuit, et luminare majus
Fere totum eclypſavit
A ſeptimo idus Novembris ad ſeptimum uſque Aprilis idus
Nec nix nec aqua viſa de cœlo cadere
Attamen, præter mortalium opinionem, Dei clementiâ,
Et meſſis et vindemia multa.

It is extraordinary, that in 1779 there was an almoſt total eclipſe of the ſun, followed by a fine winter, the ſame as in 1540. There was a ſmall eclipſe on the 7th of April, 1540, but an almoſt total one the 15th of April, 1539, and which, for quantity and duration, was very much like that the 24th of June, 1779. The crop was abundant, as it appears by the prices of the year, in the Ledger of the Ciſterſian Monks. Wheat, 1537, the moggia, 5 livres. In 1540, ditto, 4 livres. In 1541, ditto, 6 livres. The ducat of gold, or zecchin, then at 5 livres 15*ſ.* Campi (*Iſtoria di Cremona, anno* 1540) ſpeaks of the extraordinary dryneſs of this year, the abundance of crops, and ſubjoins, that the corn was cut the middle of May, and the vintage the beginning of Auguſt. This is the harveſt near forty days ſooner than at preſent, and the vintage two months. *Opuſc. Scel.* tom. ii. p. 136.

† The ſame practice was known among the antients. See *Strabo*, lib. vii. and *Quint. Curt.* lib. vii. c. 3.

greater

greater part by far found to be incloſed; generally by ditches, and, in many diſtricts, with hedges alſo; which, in ſome places, are as complete as in the beſt Engliſh counties.

MILANESE.—Much the greater part of this territory is incloſed, either with hedges or by ditches, which ſerve as conductors of the water uſed in irrigation. Theſe, in the Lodizan, and other diſtricts to the ſouth of Milan, are planted ſo thickly with willow and poplar pollards, that the country looks every where like a wood.

VENETIAN STATE.—Much of the country from Bergamo to Breſcia, is very thickly incloſed with hedges. From Breſcia to the Lago di Guarda it is the ſame; but from thence to Verona not equally ſo.

ECCLESIASTICAL STATE.—BOLOGNA.—The whole Bologneſe is incloſed. They make and plaſh their hedges with the niceſt attention: made with dead ſtakes, about four feet high, and tied in croſs lines, with great neatneſs and ſtrength. This care is, however, exerted for the boundary of the farm only; ſubdiviſions of this kind are rare.

TUSCANY.—There are no rights of commonage in all Tuſcany; thanks to the wiſdom of Leopold; every man has a right to incloſe his property as he pleaſes. The Appenines, croſſed from Bologna to Florence, are however moſtly unincloſed, and almoſt waſte.

MODENA.—From the city of Modena to Reggio, the incloſures are very neatly formed of well made hedges without any ugly ſprawling ones; but all either trimmed or made ſo often, that they are not ſuffered to ſpread.

PARMA.—To Firenzuola all the country is incloſed.

PIEDMONT.—*Tortoneſe.*—The fences from the Duchy of Modena hither are greatly declined: there are ſome hedges every where; but many large fields all the way, with only bad ditches or banks.

Lombardy, upon the whole, muſt be conſidered as an incloſed country, and much of it cloſely ſo. It would indeed be a glaring abſurdity to keep land ſo extremely valuable in an open ſtate. The importance of incloſing is well underſtood, and where not practiſed in perfection, it ariſes from cauſes that form exceptions rather than effect the general rule.

SECT. IV.—*Of Farms and Tenantry.*

THE predominant feature in the farms of Piedmont is *metayers*, nearly upon the ſame ſyſtem which I have deſcribed and condemned, in treating of the huſbandry of France. The landlord commonly pays the taxes and repairs the buildings, and the tenant provides cattle, implements, and ſeed; they divide the produce. Wherever this ſyſtem prevails, it may be taken for granted that a uſeleſs and miſerable population is found. The poverty of the farmers is the origin of it; they cannot ſtock the farms, pay taxes, and rent in money, and therefore muſt divide the produce in order to divide the burthen. There is reaſon to believe that this was entirely the ſyſtem in every part of Europe; it is gradually going out every where; and in Piedmont is giving way to great farms, whoſe occupiers pay a money rent. I was for ſome time deceived in going from Nice to Turin, and believed that more of the farms were larger than is really the caſe, which reſulted from many ſmall ones being collected into one home ſtead. That belonging to the Prince of Corignan, at Billia Bruna, has the appearance of being very conſiderable; but, on inquiry, I found it in the hands of ſeven families of *metayers*.

In the mountains from Nice to Raccónis, however, they are ſmall; but many properties, as in the mountains of France and Spain.

The Caval. de Capra, member of the Agrarian Society, aſſured me, that the union of farms was the ruin of Piedmont, and the effect of luxury; that the *metayers* were diſmiſſed and driven away, and the fields every where depopulated. I demanded how the country came to have the appearance of immenſe cultivation, and looked rather like a garden than a farm all the way from Coni? He replied, that I ſhould ſee things otherwiſe in paſſing to Milan: that the rice culture was ſupported by great farms, and that large tracts of country were reduced to a deſert. Are they then uncultivated? No, they are very well cultivated, but the people all gone, or become miſerable. We hear the ſame ſtory in every country that is improving: while the produce is eaten up by a ſuperfluity of idle hands, there is population on the ſpot; but it is uſeleſs population: the improvement baniſhes theſe drones to towns, where they become uſeful in trade and manufactures, and yield a market to that land, to which they were before only a burthen. No country can be really flouriſhing unleſs this take place; nor can there be any where a flouriſhing and wealthy race of farmers, able to give money rents, but by the deſtruction of metaying. Does any one imagine that England would be more rich and more populous if her farmers were turned into metayers? Ridiculous. The intendant of Biſſatti added another argument againſt great farms; namely, that of their being laid to graſs more than ſmall ones; ſurely this is a leading circumſtance in their favour, for graſs is the laſt and greateſt improvement of Piedmont; and that arrangement of the ſoil which occaſions moſt to be in graſs, is the moſt beneficial. Their meadows are amongſt the fineſt and moſt productive in the world. What is their arable? It yields crops of five or ſix times the ſeed only. To change ſuch arable to ſuch graſs, is doubtleſs the higheſt degree of improvement. View France and her metayers—View England and her farmers; and then draw your concluſions.

THE MILANESE.—Wherever the country that (I ſaw) is poor and unwatered, in the Milaneſe, it is in the hands of metayers. At Mozzata the Count de Caſtiglioni ſhewed me the rent book his *intendant* (ſteward) keeps, and it is a curious explanation of the ſyſtem which prevails. In ſome hundred pages I ſaw very few names without a large balance of debt due to him, and brought from the book of the preceding year: they pay by ſo many moggii of all the different grains, at the price of the year: ſo many heads of poultry, ſo much labour, ſo much hay, and ſo much ſtraw, &c. But there is, in moſt of their accounts, on the debtor's ſide, a variety of articles beſide thoſe of regular rent: ſo much corn of all ſorts, borrowed of the landlord for ſeed or food when the poor man has none: the ſame thing is common in France, wherever metaying takes place. All this proves the extreme poverty and even miſery of theſe little farmers; and ſhews that their condition is more wretched than that of a day labourer. They are much too numerous, three being calculated to live in one hundred pertichi, and all fully employed by labouring, and cropping the land inceſſantly with the ſpade, for a produce unequal to the payment of any thing to the landlord, after feeding themſelves and their cattle as they ought to be fed; hence the univerſal diſtreſs of the country. Thoſe who are advocates for ſmall farms, ſhould come hither, and ſee how they infallibly generate poverty in every cottage. The ſurplus of population is not demanded by manufactures, or by towns; the increaſe therefore is only the diviſion of a pittance of food amongſt many mouths inſtead of a few. It is impoſſible to prohibit procreation, or to force emigration; but it is in a landlord's power to introduce gradually and prudently, a different ſyſtem—to occupy a large farm himſelf, cultivated accurately by day labourers of all

ages and ſexes, well paid, and if this be not ſufficient, to eſtabliſh a manufacture of ſome groſs and ſimple kind, to employ the population already exiſting; and by a gradual alteration in his farms, to proportion the food to the mouths that are to eat it *. There is at preſent an inducement to ſuch a change, that ought to weigh very ſeriouſly: the example of the French revolution will ſpread, and will be much more apt to take effect in countries where there is nothing but the great land owner and the poor cottager, than in others where there are intermediate ranks of men of ſubſtance, who have an intereſt in preſerving public order. What a temptation to confuſion and rebellion is it, to have a country full of miſerable metayers, all deeply indebted to the ſeigneur? Nine-tenths of the people in ſuch a caſe, have an immediate intereſt in burning his caſtle and his account-books, for he ſtands ſingle, on one hand, againſt all the people, ſwarming on the other: but in the watered plain, where the farms are large and not populous, from ſo much being in graſs, there is every where a race of wealthy farmers, who have an intereſt in keeping the people quiet, — who are united with the landlord, — and who, paying their men in money, without theſe long and dangerous accounts, have not the temptation to revolt; or even if they were tempted, they would not have the diſproportion of numbers to render it equally dangerous. The great object of men who have property, is at preſent to ſecure it — and they can have no ſecurity, while they fill the country, by metaying, with ſwarms of a ſtarving and indebted peaſantry. It ſhould be remembered that the miſchievous confuſions, plundering, and burnings, in France, were not in the Pays de Beauce, nor in Picardie, nor in Artois, where metayers are unknown, and the farms large; but in the Maçonnois, in Breſſe, in Sologne, where all are in the hands of poor miſerable metayers; an inſtance, ſurely, expreſs to the purpoſe, and which ſhould have its weight with Italian landlords. But to work a change in this pernicious ſyſtem, demands a reſidence on their eſtates in the country, inſtead of abandoning them to the rapacity of ſtewards; it is not by living in the frippery of great cities, that their landed property is to be arranged on ſafe principles †.

In the watered parts of the Milaneſe, great and rich farmers are found. Here are the particulars of a farm I viewed, between Milan and Pavia; viz. three thouſand one hundred *pertichi*; one thouſand ſix hundred of rice; two hundred flax; four hundred and fifty perennial graſs; four hundred and fifty clover; four hundred arable crops, wheat, rye, maiz, millet, oats, &c.; twelve horſes; eight oxen; fifty-five cows, two bulls; forty labourers; rent 20 livres the pertica; the whole capable of being watered. And at Codogno the following are the particulars of one, where one hundred cows are kept: two thouſand *pertichi*; one hundred cows; one cazaro; one ſotte cazaro; ſix others; nine for corn; one agent; one guard againſt thieves, and thoſe who ſteal water; one waterman. To ſtock ſuch a farm 50,000 livres neceſſary. By means of ſuch farms they have rich farmers; ſome worth 100,000 livres. The general idea of profit, in theſe dairy diſtricts, is ten to fifteen per cent.; ſome dairy farms are occupied by proprietors, but the number is inconſiderable.

VENETIAN STATE.—All the lands in the Breſcian and Veroneſe territory are let at half produce, *à la meta*; even vines: but ſome meadows are uſually reſerved, and alſo woods. The proprietor pays the land-tax, and the farmer provides live ſtock, and pays the taxes on it.

* But inſtead of the number of farms decreaſing, they are increaſed, as we learn from Sig. Lavizari, *Annot. ſul Mitterpacher*, tom. i. p. 221.

† This whole paſſage is left as originally written; before French horrors rendered French politics objects of deteſtation rather than example.

Sig. Locatelli has a farm of one hundred campi, within two miles of the city, which yields him two hundred and fifty zecchini nett; this is ſomething more than 30s. an acre. He has alſo another farm more diſtant, of ſix hundred campi, which yields ſix hundred and fifty zecchini nett; on which there are eight cows, twenty-two oxen, and one hundred and fifty ſheep.

In the Vicentine †, rent when calculated in money two and a half zecchini per campo. They have farms ſo large as two thouſand campi.

In the Paduan, one hundred campi are a large farm; common 60; ſmall 40; and they reckon ſmall ones the beſt cultivated; if this be fact, and not a matter of opinion in the gentleman, my informant, it ſhews that their huſbandry muſt certainly be eſteemed bad; it is, however, queſtionable, for the reaſon added was, that there were more people on ſmall farms; a ſure proof that the progreſs of improvement has not been carried far. To ſtock a farm of a hundred campi, one thouſand ducats are neceſſary, reckoning the ducat at 3s. which is not exact; this is a poor ſtock, for it does not exceed 33s. the Engliſh acre. The arrangement of the farms in the Paduan, may be gueſſed at, in ſome meaſure, from the following particulars; there are found, in the whole diſtrict, two hundred and eighty-eight thouſand three hundred ſouls; forty-nine thouſand, nine hundred and forty-three cows and fatting cattle; forty-one thouſand plough oxen; one hundred and two thouſand ſheep; ſixteen thouſand five hundred and ninety-eight hogs; ſeven hundred and thirty-one mules; two thouſand three hundred and eighty-one aſſes. One Profeſſor informed me, that in his opinion, the great miſchief of the country is, that of great land proprietors letting their eſtates to undertakers or middlemen, who will hire to the amount of 10,000 ducats a year; and in re-letting to farmers will ſqueeze them ſo that they cannot live, to the great degradation of the country. Another profeſſor ſaid, that the diſtrict of Padua is not ſo well cultivated as the Vicentin, by reaſon of the greater poverty of the farmers and peaſants, who are miſerable, and have no power to make the land yield well. Indeed I learned, from very good authority, that the Paduan is not equal to the Vicentin, except in the mountains, where the peaſants are much more at their eaſe than in the plain.

Ecclesiastical State.—Bologna.—Eſtates here are very generally let to middle men, who re-let them to the farmers at half produce, by which means the proprietor receives little more than one-half what he might do on a better ſyſtem, with a peaſantry in a better ſituation. The whole country is at half produce; the farmer ſupplies implements, cattle, and ſheep, and half the ſeed: the proprietor repairs. Silk, and even wine on the ſame tenure.

Particulars of a farm (Sig. Bignami's) of ſix hundred tornature; three hundred and ſixty on the hills; the reſt on the plain: ſix metayers; thirty-ſix working oxen; twelve cows; twenty young cattle; one hundred ſheep. Produce, two thouſand corbi of wine; three to four hundred corbi wheat.

Tuscany.—Letting lands at money rent, is but new in Tuſcany; and it is ſtrange to ſay, that Sig. Paoletti, a very practical writer, declares againſt it †. A farm in Tuſcany is called a *podere*: and ſuch a number of them as are placed under the management of a factor, is called *fattoria*. His buſineſs is to ſee that the lands are managed according to the leaſe, and that the landlord has his fair half. Theſe farms are not often larger than for a pair of oxen, and eight to twelve people in one houſe; ſome one hun-

* Particulars of a farm of one hundred and twenty campi: twenty of meadow, not watered; ninety of corn; ten of clover; fifteen oxen and young cattle; three cows; two horſes; four hogs; ſeven men; four ditto, with oxen; four women; two children.

† *Paſtori*, &c. p. 162. 164.

dred

dred pertichi (this meaſure is to the acre, as about twenty-five to thirty-eight), and two pair of oxen, with twenty people. I was aſſured that theſe metayers are (eſpecially near Florence) much at their eaſe; that on holydays they are dreſſed remarkably well, and not without objects of luxury, as ſilver, gold, and ſilk; and live well, on plenty of bread, wine, and legumes. In ſome inſtances this may poſſibly be the caſe, but the general fact is contrary. It is abſurd to think that metayers, upon ſuch a farm as is cultivated by a pair of oxen, can be at their eaſe; and a clear proof of their poverty is this, that the landlord who provides half the live ſtock, is often obliged to lend the peaſant money to enable him to procure his half; but they hire farms with very little money, which is the old ſtory of France, &c.; and indeed poverty and miſerable agriculture are the ſure attendants upon this way of letting land. The metayers, not in the vicinity of the city, are ſo poor, that landlords even lend them corn to eat: their food is black bread, made of a mixture with vetches: and their drink is very little wine, mixed with water, and called *aquarolle;* meat on Sundays only; their dreſs very ordinary. Yet in all theſe particulars they were in a worſe ſituation before the free corn-trade. The richeſt peaſants are in the Valdichiano. The moſt common agreement is, for the landlord to furniſh all the cattle and ſheep, and to pay the taxes, except the capitation on the peaſants' family of 3 livres for all above three years old. In a conſiderable *fattoria* of eighteen poderi, at Caſtello Villa Bali Martelli, the largeſt is two hundred ſtiori (thirty-ſix acres, at $5\frac{1}{2}$; $28\frac{1}{2}$, at 7), and 70 the ſmalleſt. Particulars of one of one hundred and ninety ſtiori; one pair of oxen; two calves; one horſe; one mule; no cows, ſheep, or hogs; fourteen people, of all ages and ſexes; taxes before the grand Duke's redemption, 80 pauls, now 15; tithes 15 pauls, half paid by landlord, half by peaſant; this is 6s. 8d. in the whole for about thirty acres. Produce corn, one hundred and eighty ſcudi; ſilk, ſix and a half; wine, fifty-eight; oil, ſixty; in all 85l.; the half, or 44l. is the landlord's receipt for theſe articles, or above 1l. 5s. per acre, at five ſtiori and a half to the Engliſh acre, and 1l. 11s. if at ſeven. No ſmall proprietor.

Villamagna.—Sig. Paoletti, rector of this pariſh, and author of ſome valuable works on agriculture, which I have had occaſion to quote, was ſo obliging as to give the following detail of the three poderi belonging to his living, from which the arable œconomy of this part of Tuſcany will be well underſtood.

Three Poderi; three Families.

Seed ſown.—48 ſtaji of wheat	—	168 *ſtiori of land.*
3 ditto vetches	—	$7\frac{1}{2}$
24 ditto beans	—	28
6 ditto oats	—	10
Artificial graſſes; viz. clover, great millet, vetch, and oats, all for forage —	—	24
Wood, —	—	283

The ſtajo of wheat, of forty pounds Engliſh (fifty-two pounds to fifty-five pounds Tuſcan), ſows three ſtiori and a half, and yields eight or nine times as much; vetches four times the ſeed; beans three times; oats ſeven times; the wheat is a tolerable crop; all the reſt miſerable. If the farms, immediately under the eye of this able writer, yield no more in this *metà* ſyſtem, we may ſuppoſe the poverty of the common products; we have on the worſt lands in England no idea of ſuch crops as theſe of vetches, beans, and

oats. There are further on the three poderi, thirty-ſix ſheep; one mule; ſix oxen; and four cows; alſo fifty barrels of oil, at five ſcudi; and three hundred and eighty barrels of wine, at 10 livres the barrel, vintage price, but at a year old 15 livres or 16 livres; in ſilk 25 ſcudi; and in wood 10 ſcudi, for three-fourths of the woods are in a ſtate of deſtruction. Theſe poderi are let *a la metà*; repairs are done by the proprietor; live ſtock belong to the incumbent, and neither to the church nor to the peaſants; implements belong to the tenants; ſeed-wheat, three fourths to them, and one-fourth to the owner; of ſpring-corn, all to the latter; alſo all ſorts that are put in with the vanga (ſpade, as the land is ſo much the better laboured. Let it be remembered, that the ſpade being preferred to the plough, is the moſt deciſive proof that tillage is in a ſtate of mediocrity, if not barbariſm.

* MODENA.—In the mountains there are many peaſant proprietors, but not in the plain. A great evil here, as in other parts of Lombardy, is the practice of the great lords, and the poſſeſſors of lands in mortmain letting to middle-men, who re-let to metayers; under which tenure are all the lands of the duchy. The tenant furniſhes one-half of the cattle, and the landlord one-half. To Reggio the number of ſcattered houſes very great; good; and with neatly hedged home-ſtalls: apparently there is not a labourer's houſe in all the country; all metaying farmers.

PARMA.—Appearances from Reggio to this place are much inferior to thoſe from Modena to Reggio; the fences not ſo neat; nor the houſes ſo well built, white, or clean. All here metayers; the proprietor ſupplies the cattle, half the ſeed, and pays the taxes; the peaſant provides the utenſils. In the whole dutchies of Parma and Placenza, and indeed almoſt every where elſe, the farms muſt be very ſmall; the practice I have elſewhere noted, of the digging the land for beans, and working it up with a ſuperfluity of labour, evidently ſhew it: the ſwarms of people in all the markets announce the ſame fact; at Placenza, I ſaw men whoſe only buſineſs was to bring a ſmall bag of apples, about a peck; one man brought a turkey, and not a fine one. What a waſte of time and labour, for a ſtout fellow to be thus employed.

SAVOY.—All the peaſants are proprietors. So long ago as the year 897, lands were let on leaſe for twenty-two years, and not only for a payment of fruits or ſervice, as in all the northern parts of Europe, but partly at a money-rent. This ſhews how vaſtly more forward Italy was in thoſe early periods, than the reſt of Europe *.

It is ſaid, that in 1464 began the cuſtom of letting lands on a three years leaſe †.

SECT. V.——*Rent and Price of Land.*

This, as I have endeavoured to explain already, in the caſe of France, is one of the moſt important inquiries in rural œconomy. The vulgar notion is, that nothing raiſes the value of land, but trade or manufacture. If the reſult of my travels were only to produce facts ſufficient to overturn ſo falſe a theory, my time would not be altogether loſt.

PIEDMONT.—*Chentale.*—Land in general is ſold at 800 livres, or 900 livres the *giornata*, which is to the Engliſh acre as 7440 is to 7929. *(Pauſton)* At a diſtance from

* —— *Uncerto Donno, che cerca da P. Abate di S Ambrogio a nomo di livello, per ventidue anni, alcune terre nel Contado di Breſcia, ch'erano del moniſtero d'Orona; promettando di pagare a fitto cioè per ſiſſa annuale penſione tanta quantità di generi, e di denaro. Secala modia decem, Seligine ſtaria duodecem, ſaba. &c. &c. &c. Giulini* goes on; "*Qui chiaramente si cómprende, che s'ingannò il Mattioli il quale credette, che la ſegale foſſe la ſiligine degli antichi.*" *Memorie della Citta e della Camp di Milano. Guilini parte* ii. p. 62.

† "*ſopra l'Inſtituzione Agraria della Ciovventu.* 4to. 1789. p. 58.

towns,

towns, 600 livres to 850 livres. Some at 1000 livres (53l. 6s. per Engliſh acre). Good watered meads, 1000 livres to 1200 livres.

Turin.—The price of land in the environs of Turin, as may be ſuppoſed, is very high. Four miles from the town ſome is ſold without water, at 1200 livres the giornata: with water, it depends on quantity, and the value is immenſe. Land that has one hour a week of ſuch a ſtream as will water five giornata in that hour, ſells at 1500 livres (79l. 19s. per Engliſh acre); if it waters two giornata, 1000 livres; and if three, 1200 livres. And ſuch watering adds at leaſt one third to the value of the land. At Cambiano, five miles from Turin, arable land ſells at 3000 livres, but this is uncommon. Near the town ſuch prices as 3000 livres and 4000 livres are known. But in general, arable watered, near Turin, ſells at 1000 livres; at a diſtance and not watered, 200 livres to 550 livres. If a general average were to be made of all ſorts of land, except the very fineſt, it would be about 500 livres. In regard to rent, but little is let for money, chiefly at one half produce; but ſuch meadows as would ſell at 1000 livres would let at 70 livres to 75 livres. If two-thirds are arable, and one third meadow, 40 livres will be about the rent in good lands. In the territory of Turin, arable lets at 30 livres.

Vercelli.—Rice grounds, 500 livres; good wheat land, 800 livres; watered meadow, 600 livres and 700 livres per giornata.

Milanese.—The price varies from 15 livres for the pooreſt waſtes, to 1000 livres the pertica *; but from 600 livres to 1000 livres more common. As the livre is 7¼d. Engliſh, 1000 livres is 98l. 19s. 2d. per acre. It is uſually bought in ſuch a manner as to pay 2½ to 3 per cent. for the purchaſe money.

Between Milan and Pavia, land rendered good by water, ſome ſells at 300 livres to 500 livres: at 300 livres it lets at 12 livres.

From Milan to Mozzata, when you have paſſed the watered plain, which is in a few miles, the rent in general is not more than 4 livres or 5 livres the pertica. In every new leaſe for a long period, ſuch as eighteen or twenty-one years, there is always an

* The difficulty I have met with, in aſcertaining the contents of a Milaneſe pertica, is ſtrange. Paucton, in his *Metrologie*, makes it to the Engliſh acre, as 0.14727 is to 0.7,29, by which proportion, it ſhould contain 8090 feet, or about 5¼ perticas in an acre. Count Alexander Cicogno, in the Memoirs of the Patriotic Society of Milan, vol. ii. p 304, ſays, that if ſeeds are planted at fifteen oncie one from another, 1479 will plant a pertica. As the oncia is two inches Engliſh, this makes 9243 Engliſh feet in a pertica.

Monſ. de la Lande ſays, that it takes more than five perticas to make an arpent de Paris; now as that arpent is to the Engliſh acre, 0.66,4 is to 0.7929, there are conſequently 36,775 Engliſh feet in that arpent; at five perticas, it would conſiſt of 7355 Engliſh feet, or about ſix to an acre.

In the notes to the new edition of the *Venti Giornata* of Gallo (1775), this pertica is ſaid to contain 6152 French feet, which will not differ materially from De la Lande.

Count Carli, who was preſident of the ſupreme council of Finances at Milan, and has written intelligently on the *cenſimento* ſays, *L'arpent di Francia ſta alla pertica Milaneſe come* 1¾ *ad uno proſſimamente.* (Delle opere del S. Conte Carli. 8vo. 1784, tom i. p 223.) The arpent of France being to the arpent de Paris as 48 to 32, there are 55,162 Engliſh feet in it, and in the pertica (at 1¼ to 1) 31,500 feet. But the ſame author ſays (p. 320.), there are 4818 pertichi in a ſquare Italian mile; if ſo, there are 3628 in a ſquare Engliſh mile; this makes 5½ and 1-6th pertichi to an Engliſh acre.

Finding ſo many contradictions, I judged it neceſſary to recur to different authority. The *oncia* of Milan is two Engliſh inches, and the meaſures thus arrange themſelves:

One pertica 24 tavoli.
One tavoli 12 piedi.
One piede 12 oncie.

Of theſe the tavola and pertici are ſquare meaſures, the former containing 12 piedi *ſquare*; this makes 576 Engliſh feet, which multiplied by 24, the reſult is 13,824 feet for a pertica, or *about* 3⅛ to an acre; and by this eſtimate I ſhall calculate.

augmentation

augmentation of rent in every part of the Milaneſe, and generally to a pretty conſiderable amount. There is alſo an undoubted augmentation in the ſpecie current in the country, and the prices of every thing have riſen at the ſame time that money has increaſed. It highly deſerves noting by the politician, that as the Milaneſe ſubſiſts entirely by land produce, without trade (other than the ſale of that produce) and without manufacture, it is remarkable that it has experienced an advance in its proſperity, as well as countries that ſeem to engroſs both trade and manufacture; even at a period long after it had attained a height of cultivation and improvement, to which thoſe trading countries have little to oppoſe.

Lodi.—The beſt land near this place, 600 livres the pertica (59l. 8s. per Engliſh acre); but farther off, 300 livres to 350 livres. The *Spina*, a farm I viewed, belonging to the Caval. Don Baſſiamo Bona Noma, lets at 30 livres, others at 25 livres; but the common price 12 livres to 15 livres. The beſt land and higheſt rent is all for cows.

Codogno.—Watered lands ſell at 300 livres the pertica; and let at 10 livres (19l. 9s. per Engliſh acre) nett rent, tenant paying cenſimento, &c.

	liv	*ſ.*
Rent nett, - -	10	0
Water tax for diſtribution, -	1	0
Cenſimento, - -	2	5
Total rent, - -	13	5

VENETIAN STATE.—*Bergamo.*—Price of land near Bergamo, 80 ducats the pertica. The ducat is 8 livres, and 50 livres the pound ſterling; and if the editors of Agoſtino Gallo be not miſtaken, there are 6194 French feet in a pertica; on theſe proportions, land ſells at 78l. 8s. per Engliſh acre.

Breſcia.—The beſt ſells at 800 ſcudi; commonly from 300 to 500 ſcudi the jugero. This meaſure containing four pertichi, and the Engliſh acre 4½, makes 400 ſcudi to equal 59l. per Engliſh acre, at 7 livres the ſcudo. The beſt land of 800 ſcudi, amounts conſequently to 118l. Rents, per jugero, 5 to 10 ſcudi; the mean, 7½ ſcudi, equals 22s. Engliſh acre.

Verona.—Land here commonly ſells at 70 zecchini the campo (44l. 6s. per Engliſh acre), and yields to the proprietor 3 to 4 per cent. I viewed an arable field cloſe to the city, yet ſowing with wheat, that would ſell for 100 zecchini per campo: and ſome other lands juſt out of the Porta Nouva, that are exceſſively gravelly, would ſell for 15 zecchini; ſuch poor land, at a diſtance, would not ſell for more than 8 or 9 zecchini (5l. per Engliſh acre): it is however not ſo bad, but that good mulberry-trees are on it.

Vicenza.—The beſt watered meadows ſell at 2400 livres to 3000 livres the campo, which is about 65l. per Engliſh acre, the beſt arable is nearly as valuable. The worſt arable 300 livres; in the beſt there are neither mulberries nor vines. Common price 900 livres to 1000 livres, and the produce 110 livres per campo, about 55s. the acre. The higheſt rent in money is 3 zecchini the campo, common 1, 1½, or 2 zecchini. But in general land is let at half produce.

To Padua.—The beſt lands ſells at 45 zecchini the campo: rice-grounds are at that price.

Padua.—The beſt arable land ſells at 200 ducats, of 6 livres 4*ſ.* The campo is 840 pertiche quadrate, each of ſix feet, conſequently 30,240 feet; but the foot is one inch longer

longer than the Paris foot: it is therefore equal to about 35,280 Paris feet *, or about $\frac{1}{10}$th under an Engliſh acre. Middling land 95 ducats; bad 50 ducats; rice grounds, and conſequently irrigated, 200 ducats; the ſame land before rice being planted, 100 ducats; watered meadows, 200 ducats; woods, 100 ducats; gardens, 400 ducats. Eſtates pay 5 per cent.

Ecclesiastical State.—*Bologna.*—Landlords are paid by half produce, which affords them about 1l. 6s. 5d. per tornatura, of half an Engliſh acre, and as much is left for the farmer: this is about 5l. 5s. an acre, groſs produce, on an average; but it is in the rich plain only. Through all the country, and including good, bad, and indifferent, it varies from 8s. 9d. to 26s. 5d. the tornatura, for the landlord's ſhare. The price for ſuch land as yields the latter ſum, is 21l. 17s. 6d. Engliſh, the tornatura: in general from 8l. 15s. to 13l. 2s. 6d. The return for the value of land is 4 to 5 per cent. on the capital, but in farms on the mountains, 7 per cent.

Tuscany.—*Florence.*—The landlord's half of the produce, for all farms are let *a la metà*, is about 3 livres nett (2s. 1½d.) per ſtiora on the plain (11s. 8¼d. per Engliſh acre †): it is 2 livres on the hills (7s. 8½d. per acre), and 1 livre on the mountains. No other proof is wanted of the poor ſtate of agriculture in this country, ariſing, doubtleſs, from ſo wretched a mode of letting land. What muſt it have been before the time of Leopold, who has done ſo much towards the annihilation of its old ſhackles?

Villamagna.—Three poderi, containing 200 ſtiori cultivated, and 283 of mountain wood, would ſell at 12,000 ſcudi (3400l.); and per ſtiora for the whole, 7l. each: it alſo yields a rent by metaying of 500 ſcudi; and land is commonly ſold to pay 3½ per cent. intereſt; but more commonly in other parts only 3.

Dutchy of Modena.—*Modena.*—The biolca, which is here the meaſure of land, is twenty nine French toiſes by twenty-ſix, or ſeven hundred and fifty four; or to the Engliſh acre as 27,144 is to 38,300; or as 15 to 21. This meaſure of arable ſells from 500 livres to 1200 livres—the livre half that of Milan, or about 4d.; 800 would be 18l. an acre. Watered meadow ſells at 1200 livres to 3000 livres; the latter equals 70l. an acre. Such are mown thrice; the firſt cutting yields one carro of 100 poid, or 2500lb. (the pound about ¼ths of an Engliſh pound); and the price of hay 3 to 4 zecchini per carro.

Parma.—The beſt land ſells commonly at 50 zecchini the biolca (31l. 7s. per acre). To Firenzuola, the beſt ſells at 25 to 40 zecchini.

Piedmont.—*Vogara.*—From St. Giovanni to Vogara, the price of the beſt is 500 livres the journal. After that town, 24 ſcudi di Milano per tavola (about 20l. to 25l. per acre). From Vogara, to within a few miles of Turin, the average value of land is 500 livres (26l. 13s. per Engliſh acre).

Savoy.—At Montmelian, vineyards ſet at 1000 livres to 1200 livres the journal, which about equals a French arpent. On the mountain ſides to Chamberry, on a ſoil, to appearance abſolutely ſtones, that yield good wine, and ſell as high as meadow. Cultivated land at Modena, in the Haut-Savoy, at 1000 livres. Improved mountain ſpots, 300 livres to 500 livres.

The moſt careleſs examination of the preceding prices will be ſufficient to ſhew, that land is ſold at preſent in Lombardy, ſome ages after it has loſt both its commerce and its ma-

* Mr. Paucton makes it more than an arpent of France, 1.0866. How he proves this, I am not arithmetician enough to know.

† This at the ratio of 5¼ ſtiori per acre.

nufactures *, at prices that ought to mark the direct influence of immenſe induſtry; for it riſes from 30l. to 100l. an acre, through a territory not comparable for ſoil naturally to many others. I will venture to aſſert, that the ſame *land* in England, would not ſell for half, perhaps not for one third of the money. And it is worthy of remark, that the cities which poſſeſs moſt trade at preſent, as Leghorn, Genoa, and Venice, have little influence on the lands which ſell at the prices here noted. It is not the competition of Venetian merchants that raiſes the prices on the *terra firma*; and what have thoſe of Leghorn and Genoa to do with the Milaneſe and Piedmont? If Leghorn has not cultivated the Maremma, how was it to water the Lodizan? Bologna is perhaps the moſt manufacturing town in Lombardy; but has it drained the Commachio? If you recur not to preſent, but to ancient wealth, you muſt turn to Florence †, Piſa, Genoa, and Venice; the two firſt are in one of the worſt cultivated countries in Italy: of Genoa I know nothing but by reading; but I have read no author that ſpeaks of great cultivation in the Ligurian territory, *free from ſmall preſent proprietors*: and let it be remembered, becauſe it is a circumſtance that merits it, that great commerce and fabrics, eſpecially when depending on a *city* that governs a *territory*, hav a direct tendency not to eſtabliſh, but to annihilate ſuch properties. *liv*

The effect of great wealth flowing from induſtry, is to exti 10 little properties by the profits from trade being inveſted in their purchaſe; one cou . gentleman, witn half a ſcore farmers, and a hundred labourers, takes the place in countries, where the progreſs of wealth is in its natural courſe, of a number of little proprietors, who eat up all their produce, and yet are half ſtarving for want. Is this the caſe in the Genoeſe territory? I am ſure it is not at Venice.

The ſureſt proof of the want of diſſeminating wealth in the country, is the almoſt univerſal practice of cultivating the land by metayers; if trade and commerce did much for Italy, which cannot be doubted, you muſt look for their effects, not in the country, but in towns. Thoſe cities that poſſeſſed much induſtry (which I have named), carry ſure proofs of former proſperity: go out of their gates, and you meet with none—from what did this ariſe? Probably from thoſe cities being *ſovereign* ones, and ſhackling the country with every ſpecies of monopoly, in favour of themſelves. What is it therefore that will diffuſe wealth through all the claſſes, and give verdure to the fields, as well as luſtre to the towns? An equitable government. Whatever we poſſeſs in England, we owe to this origin; and it highly deſerves notice, that it is not a cultivation ſuperior to that of other countries, which diſtinguiſhes our iſland ſo much, as the eſtabliſhment of a race of men generally found no where elſe; a ſubſtantial and wealthy race of tenantry; a race found in every corner of England: in Lombardy, you muſt go for ſuch, not to Florence and Genoa, but to the Lodizan.

* Every one knows, that, ſtrictly ſpeaking, there are both trade and manufactures in all parts of Lombardy; converting raw to organized ſilk, is certainly a manufacture; and making a few velvets at Genoa, or glaſs beads at Venice, are manufactures, but, for all the purpoſes of argument, Lombardy, when compared to ſuch countries as England and France, muſt be ſaid to be almoſt deſtitute of them.

† For the immenſe manufactures and wealth of Florence in the fourteenth century, ſee Giovanni Villani, lib. ii. cap. 93. "*In Firenze le Botteghe* (anno 1330) *dell'arte della lana erano dugento e più e facevano da ſettanta in ottanta mila panni di valuta di più di mille dugento migliaja di fiorini d'oro* (ſono a ſcudi fiorentini 22,860,000) *che bene il terzo e più rimaneva nella terra per ovraggio ſenza il guadagno de'lanajuoli. Del detto ovraggio vivevano più di* 30,000 *perſonne.* Se per tutti i prodotti e manifatture dell'intera Toſcana preſentemente non entra più di un milione due centomila ſcudi; chiaro è, che tempo fa la ſola arte della lana in Firenze produceva venti volte più utile di quello, che preſentemente ne faccia tutto lo ſtato. *Carli Saggio Sopra* la Toſcana, op. i. p. 348.

A moſt ſingular law paſſed during the republic of Florence, that no man ſhould make proof of nobility, who was not able to deduce it from the manufacture of wool or ſilk. *Carli*, tomo v. p. 335. A more commercial idea could no where root itſelf.

CHAP. XXXII.—*Of the Management of Graſs Lands.*

CATTLE and graſs lands are ſo connected, that, I truſt, it will not be deemed an impropriety to treat of them in the ſame chapter, and as parts of the ſame ſubject. The obſervations I have made in Italy will be divided eaſily into 1, irrigation—2, live ſtock.

SECT. I.—*Of Irrigation.*

IF there be one circumſtance which gives a ſuperiority to Lombardy, over all the other countries I have ſeen, it is this, and therefore merits the moſt particular detail.

PIEDMONT.—*Nice.*—Such is the conſequence of water here, that a garden of four feſtaradi (a ſquare of twelve trebucchi, *i. e.* 144 is a feſtarada, and 400 trebucchi a giornata, which is to the Engliſh acre as 0.7440 is to 0.7929) with a ſmall houſe, lets at 20 louis d'or per annum, or about 15l. an acre.

Coni.—For the laſt ten miles from Nice to Coni, the country improves continually. The ſoil near the mountains is ſtoney, but is a good ſandy loam lower in the vale. It is perfectly level, and watered with the utmoſt attention, in a manner I had not noticed before; not as in Spain, in beds, but the field is ploughed flat, ſown with wheat, the clods broken with hoes and buſh-harrowed, and then great deep trenches ſtruck with the plough, for letting in the water; theſe are eight to twelve yards aſunder. They are now (September) watering clover eight inches high, by letting the water into theſe trenches, and conducting it in a ſingular manner. A man walking backwards, draws by a line a bunch of ſtraw and weeds, juſt large enough to ſtop the water in the trench, and force it to overflow on each ſide. This is an expenſive and operoſe method, and inferior to the Spaniſh. The crops now on the ground are maiz, good, but not extraordinary; millet; and a little hemp, the male plants picked. A great deal of clover, but not much that is clean. But meadow abounds, which is the glory of Piedmont; and the conducting of the water in multiplying conduits, ſeems well underſtood, and practiſed in great perfection.

Coni to Chentale.—In the watered meadows, much *chicorium intybus* and *plantago lanceolata*. Watered meadows are cut thrice commonly; but in ſome ſeaſons four times.

Racconis.—The watered meadows are now mowing for a third time; the predominant plants—the *chicorium intybus*, *plantago lanceolata*, *acchillea millefolium*, and *trifolium pratenſe*.

To Turin.—From Coni to Turin, ſomething more than half the country appears to be watered, poſſibly two-thirds, and wherever the water is carried, it is apparently with great ſkill. It is however rather ſingular, that more trenches are not cut for taking the water off the land; the attention is chiefly paid to bringing it on; from which we may conclude, either that the heat of the climate renders ſuch drains leſs neceſſary than in England—or that water is too valuable from every one underſtanding its uſe, to be brought on in the leaſt ſuperfluous quantity. The contrivance towards Turin, for carrying the aqueducts of irrigation acroſs the roads, are beautifully executed: for convenience of diſtribution, the water-courſe is raiſed three or four feet, or more, above the general level: theſe aqueducts are brought to the ſide of the road, and ſeemingly finiſh in a wall, but really ſink in a ſyphon of maſonry under the road, and riſe on the other ſide behind another ſimilar wall. Seeing theſe buttreſſes of maſonry, without perceiving

firſt any water, I wondered for a moment to what uſe they could be aſſigned; but when I mounted the foot-way, this beautiful contrivance was at once apparent. Theſe are noble exertions.

Turin.—The irrigation in all this vicinity is extenſive, and carried to great perfection. Water is meaſured with as much accuracy as wine. An hour per week is ſold, and the fee ſimple of the water is attended to with the ſame ſolicitude, as that of the land. Rich meadows without water ſell for 1000 livres and 1100 livres a giornata; and arable worth 500 livres without water, is in many inſtances worth 2000 livres with it. Such a meadow as will ſell for 1100 livres or 1200 livres per giornata, will yield the firſt mowing 115 rubbii of hay, worth 9*ſ.* to 10*ſ.* the rubbio, the ſecond 90 rubbii, at 7*ſ.* to 8*ſ.* and the third, 80 rubbii, at 6*ſ.* to 7*ſ.*; the fourth growth is ſold to be eaten by ſheep, at 5 livres. This produce amounts to 120 livres, or 6l. Engliſh per giornata, which is under an acre. The intereſt of 1100 livres being at 40 livres or 50 livres, there remains a ſufficient profit, after all expences are paid. During the winter, as the meadows are commonly fed with ſheep, they do not water at all. Some experienced cultivators avoid water in the ſpring, till the froſts are over, which happen here as late as the 10th, and even the 15th of May, as a ſtrong freſh vegitation is in ſuch caſes entirely cut off; but in general no attention is paid to this circumſtance, and watering goes on at all times except when ſheep are on the ground. Thoſe who have water enough, let it on to their land once a week during the whole ſummer; but if the weather is wet, once a fortnight; and a day or two before cutting, if the water is perfectly clear. In regard to the quality of water, they make no other diſtinction than that from mountains being cold, and that of the Dora, near Turin, being charged with ſo much ſand as to be bad. They attend to the cutting of weeds in the canals that they may rot; and ſome good managers harrow the bottoms in the ſpring to foul the water, which then acts more powerfully as a manure. Another practice, which tends alſo to prove what excellent farmers they are in all that reſpects meadow grounds, is that of paring and burning, which they perform on pieces that have a bad herbage, or want of improvement; but do not ſow them with corn or any other plant, except hay-ſeeds, in order to renew the graſs, with no other interruption. It is impoſſible to praiſe ſuch practices too much. They call this huſbandry *motara.*

The power of effecting the great works in irrigation, which are viſible over this whole country, depends very much on the law, which ſuppoſes the right and property of all rivers to be veſted in the king; conſequently all canals taken from them, are bought of him, and this enſures another regulation, which is the power of carrying the water, when bought, at the pleaſure of thoſe who buy it, where they think fit; they cannot however cut acroſs any man's ground without paying him for the land and the damage; but the law does this by regulations known to every one, and no individual is allowed a negative upon a meaſure which is for the general good. The purchaſers of water from the king, are uſually conſiderable land owners, or communities that have lands wanting water, and it is of no conſequence at what diſtance theſe lands may be from the river whence the water is taken, as they have a right to conduct it where they chooſe, provided they do not cut through a garden or pleaſure ground. Nor can they carry the water *under* that of others, whoſe canals are already made, as they might in that caſe deprive them of part of their water; they are obliged to throw aqueducts *over* ſuch canals. The benefit of water is ſo great and well underſtood, that nobody ever thinks of making objections; and in caſe their lands are not already watered, it is no ſmall advantage to have a new canal brought through them, as they have the opportunity of buying water of the proprietors. It is ſold per hour per week, and even half an hour,

and down to a quarter. The common price of an hour per week for ever, is 1500 livres. At Gruliaſcho, four miles from Turin, there are many Perſian wheels that lift up the water by buckets; the wheels are double, with waſhers between for the ſtream turning them; the buckets or boxes on one outſide only; they raiſe the water eight or ten feet, and about two and a half ſhort of the full diameter of the wheel, and I could not perceive that they loſe a drop; none falls except what adheres to the wheel itſelf. To ſave the expence of multiplying ſluices, for the occaſional ſtoppage of water, in carrier trenches, to force it over the land they have a moveable board that fits the trench, which is placed occaſionally where wanted, and anſwers the purpoſe well. They have none of the ramifications of carrier trenches common among us; and not ſo many drains for taking the water off as with us; and, on the whole, do not ſhew any thing like our attention in the uſe of the water, though twenty, or rather a hundred times more in bringing it from rivers, and diſtributing it about the country; and I could not but obſerve that their meadows have much bad herbage, and many places damaged by the water reſting too long; this is more the caſe here than it ſeemed to be from Coni to Racconis, where the meadows carried a better countenance.

Turin to Chivaſco.—Not one-third of this country is watered. At Chivaſco but little alſo. After croſſing the Dora Belta, there are ſoon two conſiderable canals of irrigation; one made two years ago only, which is as great a work as a navigation in England.

Ciglione.—Little land watered in this country; but I obſerved here ſome meadows, with off-channels from the principal ones, for conducting the water, which I did not notice before; but very few drains. The new canal croſſes a gravelly waſte, but none of it watered.

Trouchan.—A very rich country much watered; and many mulberries.

St. Germano.—Mowing the third crop of graſs, and very poor; not more than fifteen cwt. an acre, and yet watered. The glory of Piedmont is from Coni to Turin. Thoſe who paſs Mont Cenis to Turin, and Turin to Milan, ſee, on compariſon, nothing.

Vercelli.—The new canal now making, for taking water from the Dora Belta, and conducting it to the rice grounds of Vercelli, is done by the king, and will coſt three millions; the water is ſold to communities. The other I croſſed near the Dora, at the ſame time, was made long ago, and belongs to the Marquis de Bourg.

Milanese.—*Buffalora.*—After croſſing the Teſino, in ſeveral branches, and entering the Milaneſe, we find a great ſyſtem of watering meadows to Buffalora, where that magnificent canal, the Navillio Grande is twenty yards broad, and though navigable, was originally made for irrigation alone.

St. Pietro Olmo.—Hence, for ſome diſtance, there is no watering; but then there is ſomething in our Berkſhire method; the lands are arched up, and juſt in the centre, on their crown, are the carrier trenches for conducting the water, and on each ſide a row of low ſallows; ſome of theſe lands are two rods broad, and two feet higher in the ridge than in the furrow; the land firm and the herbage good: wherever the meadows ſeem good, there is abundance of *chicorium intybus*, *plantago lanceolata*, and *trifolium pratenſe*.

Milan.—As the irrigation of the Milaneſe is perhaps the greateſt exertion of the kind that ever was in the world, and certainly the firſt that was undertaken in Europe, after the decline of the Roman empire; it merits every attention that a farming traveller can give; for it will be found, by very briefly recurring to records, which have been ſearched, that great exertions (perhaps as great as ever known) were made in this country, at a period when all the north of Europe was in a ſtate of barbariſm. In the year 1037, mention

mention is made of the canal Vecchiabbia. In 1067, watered meadows were common, called *prato roco*, by Landolfo *. In 1077, there are notes of many ſtreams uſed. In 1138, the monks of Chiarevalle bought of Giovanni Villano ſome commons, woods, and meadows for 81 livres under the contract (a parchment yet remaining) "*ut monaſterium poſſit ex Vectabia trahere lectum ubi ipſum monaſterium voluerit et ſi fuerit opus liceat facere eidem monaſterio foſſata ſuper terram ipſius Johannis ab una parte viæ et ab alia—&c. poſſit firmare et habere cluſam in prato ipſius Johannis, &c.*" There is a ſimilar contract of the following year, and various others, until the beginning of the thirteenth century; from which, and others, it appears that the Vecchiabbia was the entire property of the monaſtery, and confirmed in 1276 by the diploma of the Emperor Frederick II. The merit of theſe monks appears to have been great, for they gained ſuch a reputation for their ſkill and induſtry, that they had many applications for aſſiſtance in directing works ſimilar to their own upon uncultivated lands; and the Imperial Chancellor Rinaldo, in the time of the Emperor Frederick I. being appointed archbiſhop of Cologne, found the poſſeſſions of his ſee in ſuch a deplorable ſtate, that he applied for, and found the ſame aſſiſtance as reported by Ceſarior Eiſterbacenſe. Their greateſt exertions were in irrigation, which was ſo well known, that they ſold their ſuperfluous water, transferring the uſe and property of ſome by the hour, day, and week. In two centuries they came to be poſſeſſed of ſixty thouſand pertiche, moſtly watered: there is reaſon to believe that the practice in the thirteenth century did not materially differ from the preſent modes; becauſe, in the papers of the archives of the abbey of that period, mention is made of *chiuſe, incaſtri, bochilli, ſoratoi* †, and other works, to diſtribute the water, and regulate the irrigation ‡. In 1164, the Emperor Frederic gave various rights, in certain rivers, to the people of Pavia, for the purpoſes of irrigation §. In 1177, the people of Milan enlarged and continued the Navillio Grande, from Abbiate Graſſo to Milan, being fourteen miles; it was brought from the Teſino, near the Lago Maggiore, to Abbiate Graſſo, twenty miles, by the people of Pavia, long before the date of any records now known to remain ‖. In 1271, it was made navigable. It is thirty-two Italian miles long, and twenty-five bracchi wide, or forty-nine Engliſh feet ¶.

The ſecond great work, was the canal called Muzza, which takes the waters of the Adda, at Caſſano, and carries them to Marignano, there dividing and watering much of the Lodizan. It was executed in 1220 **, and done in ſo admirable a ſtyle, that Padre Friſi, in the preface to *Modo di regolare i fiumi, &c.* ſays,—"*il meccaniſmo d'irrigar le campagne è ſtato ridotto all'ultimo grado di maeſtria e di perfezione nel canale di Muzza* ††." And Padre Antonio Lecchi, another great engineer and mathematician, remarks,—"*De'noſtri trè celebri canali di Muzza, e de'due navigli qual altra memoria ci rimane ora, non ſe quella del tempo della loro conſtruzione, e d'altre poche notizie, niente concernenti al maraviglioſo artifizio della loro condotta* ‡‡."

In 1305, the canal of Treviglio was made, which takes the water from the Brembo, and carries it for ſeveral miles, about twenty-five feet wide, and about three deep; it ir-

Guilini, tom. iv. p. 122. 224, 225.

† *Chiuſe*, are ſluices; *incaſtri*, are water gates that are moved perpendicularly; *bochilli*, openings in the banks to diſtribute water; *ſoratoi*, diſcharges for carrying off ſuperfluous water; the ſame as *ſcaricatori*.

‡ *Memoire Storica ed Economica ſull' Irrigazione de Prati. Don. Ang. Fumagalli Atti di Milano*, tom. ii. p. 215.

§ Guilini, tom. vi. p. 330.

‖ *Nuova Raccolta d'Autoriche trattano del moto dell'Acque.* Parma. 1768. 4to. Tom. vii. p. Priſi. p. 97.

¶ Ibid. p. 98. ** Verri, Storia di M. t. i. p. 240. †† Nuova Raccolta, tom. vii.

‡‡ *Ib. Piano, &c. de tre torrenti*, p. 141.

rigates

rigates the territory of Triviglio and the Ghiara d'Adda. And, within four or five miles, there are five canals, taken from the Adda and the Brembo, all of great antiquity. In 1460, the canal de Martesano was begun, under Duke Francis Sforza I.; it was twenty-four miles long, and eighteen braccia (thirty-five Engliſh feet) wide; ſince lengthened ſeven or eight miles more. It takes the waters of the Adda, a little before Trezzo, by means of a powerful wear (*chiuſe*) founded upon the living rock; it is then ſupported for five miles by a ſolid wall of ſtone, forty braccia (eighty feet) above the bottom of the Adda, and parallel with it. At Gorgonzola, it paſſes over the torrent Molgora, by a bridge of three ſtone arches. At Carſenzago, it is croſſed by the river Lambro, which enters and quits the canal with all its floods. And in order to prevent the ſurplus of water, which this circumſtance occaſions, from breaking the banks of the canal, or overflowing them, there are nineteen ſcaricatori in the canal, above, below, and facing the junction, which are ſo calculated that they have not only powers ſufficient to take off the waters of that river, but alſo half of thoſe of the canal itſelf. Theſe ſcaricatori are canals which take the water, when ſluice-gates are opened for that purpoſe, and convey it at various diſtances to the Lambro again; the fall in its courſe being conſiderable enough to free the canal from all ſuperfluity of water. Near Milan, this Navillio receives the torrent Seveſo; and, after ſurrounding the city, unites with the Navillio Grande and the Olona. The ſluices which Bellidor ſuppoſed to be invented by the Dutch were uſed for the firſt time near Padua, in 1481, by two engineers of Viterbo, Dioniſius and Peter Domenico, brothers *. Leonardo da Vinci profited immediately of this great invention, for the union of the two canals of Milan; and finding between them the difference of the levels to be eighteen braccia †, he with ſix ſluices, in the year 1497, under Ludovico il Moro, opened and facilitated the navigation from one to the other. The greateſt ſcaricatori ‡ of the waters united at Milan, is the canal of Vecchiabbia, which, after having ſerved ſome mills and irrigation, falls into the Lambro near Marignano; and if this canal were made ſtraight, and ſupported by ſome ſluices, the navigation might be continued to the Lambro, and thence to the Po and the ſea. Both theſe canals, the Grande and the Martesano, are ſo contrived as to be completely emptied once a year, for cleaning and repairing whatever accidents may have happened to any of the works.

I have entered into this digreſſion upon a very curious ſubject, little known in Engliſh literature §, in order to ſhew how well irrigation was underſtood, and how admirably it was practiſed, when the countries on this ſide of the Alps were barbarous. At the ſame time, however, that juſtice is thus done to theſe great exertions, we muſt bear in mind that few diſtricts in Europe are better, or ſo well ſituated for irrigation. The lakes of Maggiore and Como, nearly upon the ſame level, are three hundred feet (one

* *Moto dell'Acque*, vol. v. Parma, 1766, p. 349. Mentioned by Zendrini in the tenth chapter, *Sopra l'Acqua Corrente*. This is the common ſuppoſition in Lombardy, and is thus recorded; but it appears to be an error, by a paſſage in Guilini, tom. xii. p. 332, where, anno 1420, mention is expreſsly made of them *machinarum quas conchas appellant, &c.*

† P. 98. *Friſi.*

‡ The *ſcaricatori* are what I believe we call wears in England; they are diſcharges of ſuperfluous waters. Mr. Brindley made them in the Duke of Bridgewater's canal, circular, and in the centre of the river, to convey the water as into a well; but in Italy they are cuts or openings in the banks of the canal, at places that allow a quick conveyance of the water; for inſtance, where a canal croſſes the bed of a river; their powers are calculated with ſuch a mathematical exactneſs, proportioned to the quantity of water brought into the canals by the rivers joining them, that no floods ever effect the ſurface, which is of an equal height.

§ One would naturally look for ſome knowledge of theſe facts in "Anderſon's Deduction of Commerce;" but we ſhall look in vain.

hundred

hundred and fifty braccia) higher than Milan,—and that of Lugano two hundred feet higher than thoſe, with a nearly regular declivity to the Po *.

There are authors who have aſſerted, that agriculture is improved in conſequence of great trade or manfactures only; but the inſtance of the immenſe irrigation in the Milaneſe, effected by theſe and many other canals, too numerous to meſtion, will not allow of ſuch a concluſion being general; and to ſhew that my opinion is not without foundation, a very brief review of the ſtate of Milan, ſo far as it reſpects theſe periods, will not be diſpleaſing to a reflecting reader.

In 1177, when the canal de Navillio Grande was made, the republic of Milan had been gradually forming for about two hundred years †; but theſe dominions were exceedingly confined;—Lodi, Pavia, Mantua, Verona, Crema, Tortona, Como, Bergamo, Breſcia, Piacenza, Parma, Genova, Aſti, Vercelli, Novara, Cremona, Ivrea, Padua, Alba, Treviſo, Aquileia, Ferrara, Reggio, Modena, Bologna, Imola, Ceſena, Forli, Rimini, Fano, and Ancona,—were at that time independent republics ‡; which united againſt Milan, in 1162, with the Emperor Frederick I. and beſieged and deſtroyed it. This ſingular fact that in fifteen years after one of the moſt ſignal deſtructions that could be brought upon a city, there ſhould be found energy enough in a petty republic, to undertake a work which is in the preſent age regarded as an honour to Lombardy muſt be admitted as a proof, that the trade and manufactures of that period could have been but very inconſiderable.

Milan, however, unqueſtionably aroſe to great power and proſperity; and our buſineſs is to inquire into that period, whence we may judge how much its commerce might influence the perfection to which ſhe has carried agriculture.

1042, Civil war; the nobility driven out by the people.
1056, The government changed.
1067, Meadows watered. *Guilini*, iv. 122.
1108, War with Pavia.
1111, Lodi deſtroyed by Milan.
1127, Como deſtroyed by Milan.
1153, Frederick Barbaroſſa interpoſes.
1162, Milan taken and deſtroyed.
1167, The people of Milan living in tents and cabins. To,
1183, War with Frederick.
1177, Navillio Grande continued to Milan.
1191, Grant of waters to Pavia, for irrigation, by the Emperor Henry VI.
1204, The nobility expelled.
1210, The archbiſhop's revenue 80,000 fiorini d'oro, equal to ten millions of livres now.
1216, A woollen manufacture.
1220, The canal of the Muzza made.
1221, The archbiſhop and nobles expelled.
37, War againſt the Emperor Frederick II.
40, Government reduced to pay in paper money; the origin of all that has paſſed ſince in Europe.
57, The nobility expelled.
—, The Navillio Grande begun to be made navigable.

* *Verri, Storia di Milano.* 1783. tom. i. p. 5.
† *Storia di Milano.* p. Verri. 4to. 1783. tom. i. p. 142.
‡ *Verri*, tomo i. p. 175.

1263,

2263, Factions of the Guelphs and Ghibellines now in full activity at Milan.
1271, The Navillio Grande navigable.
1277, Civil war;—Toriani and Viſconti.
1281, Ditto.
1288, Milan buys wool from France, Flanders, and England.
1296, Decree, that gave to every one the power of conducting water acroſs all great roads, provided ſtone bridges were erected.
1302, Revolution;—the Toriani get the better of the Viſconti.
1305, Canal of Treviglio made.
1310, Revolution; the Viſconti prevail.
1327, Violent factions of the Guelphs and Ghibellines.
1332, Grant of water for irrigation to the people of Treviglio.
1350—1385, Tyranny of the Viſconti drives away the manufactures.
1395, Great power of Milan over the cities of Lombardy *.
Through every part of the fourteenth century, the paſſages in the Annals are numerous, which prove how well irrigation was underſtood, and how highly canals of water were valued.
1421, Milan exports cloths to Venice †.
1457, Moſt of the conqueſts of Milan loſt.
1460, Canal de Marteſano made.
1481, Sluices invented at Padua.
1497, Leonardo da Vinci joins the canals at Milan.

It ſhould ſeem from this detail that the exertions in irrigation were almoſt purely ricultural; the benefit enjoyed by the people of Pavia, from the Navillio Grande, s a conſtant proof of the advantages to be derived from ſimilar canals; and they re executed at moments which will not allow us to attribute them to the influence of nufacturing or commercial wealth.

To this may be added, that during the 13th and 14th centuries‡, Italy was the perpetual ne of bloody wars; the Venetians and Genoeſe, the Venetians and the Milaneſe, and, in ir turns, the other republics ſeem to have had no other buſineſs than that of cutting each er's throats. A perpetual ſtate of warfare, and ſo many revolutions as were taking

In 1378, Giovanni Galeazzo Viſconti Conte di Virtu was declared Duke of Milan, his dominions n compriſing Arezzo, Reggio, Parma, Piacenza, Cremona, Lodi, Crema, Bergamo, Breſcia, Verona, enza, Feltro, Belluno, Baſſano, Bormio, Como, Novara, Aleſſandria, Tortona, Vercelli, Pontremoli, bio, Sarzana, Pavia, Valenza, Caſali, Padua, Alba, Aſti, Bologna, Piſa, Siena, Perugia, Nocera, Spo-, and Aſſiſi. Verri. p. 417.

As this woollen manufacture is ſaid to have been in the hands of an order of friars, the *frati umiliati*, have no reaſon to ſuppoſe it an object of great conſequence; the expreſſions ſeeming to imply its magnie being applicable to a compariſon with poorer neighbours. Count Guilini ſays, on occaſion of its g carried from Milan to Sicily, "*che tanto fioriva fra noi,*" (tom viii. p. 585;) but records do not exn the extent; though we are told that they worked up wool from France, Flanders, and England, in 8 (tom. viii. p. 399;) which trade had exiſted to ſome degree of conſideration in 1216. Count Verri the expreſſion——"*lavoro de pannilani la quale formò la ricchezza coſpicua di Milano.*" (*Storia di Mi-*, tom. i. p. 357.) But it was Venice, Genoa, Piſa, Amalfi, and Ancona that had the empire of the which gave that author reaſon to ſay, "*che tutto il commercio dell'Europa era preſſo gl'Italiani.*" (tom. i. 65.)

In the preceding periods it was probably worſe. Count Verri obſerves, "*Dello ſtato della popolazione decimo ſecolo—mi pare veroſimile che doveſſe eſſere mediocremente popolato Milano. Le terre erano coltivate parte ervi e parte da liberti. Molte parti del ducato era boſco. In qualche luogo, che ora ſi coltiva forſe, ancora ano delle acque ſtagnanti.*" *Storia di Milano*, tom. i. p. 76.

place in the governments of the Italian cities, were little adapted to give a ſecurity of poſſeſſion eſſentially neceſſary to the eſtabliſhment of ſuch manufactures and commerce, as ſhall by the overflowing of their ſurplus, ameliorate the agriculture of a country.

It was but fifteen years after the deſtruction of Milan, that the Navillio Grande was made; and within three years after the loſs of all her conqueſts, that the canal de Martefano was digged: theſe great undertakings were, therefore, executed at periods when commercial proſperity could leaſt of all effect them. There was no ſtability in that proſperity. It is alſo to be remembered, that throughout this period of Milaneſe hiſtory, that people, even at the height of their power, were never maſters of a commercial ſea-port. It is true that they twice took Genoa; firſt in 1353, but kept it for a very ſhort time; and again in 1421, when they were in poſſeſſion of it but fourteen years; and amongſt all the dominions of Galeazzo Viſconti, Sarzano was the only port, and that never a commercial one; thus the fabrics of Milan were obliged to be exported through the Venetian or the Genoeſe, who laid duties on the tranſport of their commodities.

The concluſion of the whole ſeems fairly to be, that we are not to attribute the irrigation of the country to wealth derived from foreign commerce; the fertility and excellent management of the lands ſupported a great population, which proved as induſtrious as public calamities and confuſions would allow; but it does not appear that this induſtry was ever continued through a long ſeries of peace and happineſs.

Another idea has been ſtarted, that Lombardy owed her irrigations to the effect of the cruſades: that the mad enthuſiaſts who went upon thoſe expeditions, brought home with them the art of cutting canals, for this moſt beneficial purpoſe; but hiſtory does not give ſufficient lights to allow of this concluſion. I have already remarked that the Navillio Grande was made by the people of Pavia, long before thoſe of Milan made the cut to that city; and ſo long before, that no records in the archives were found of it by that moſt induſtrious ſearcher into antiquity, Count Guilini. This fact ſeems nearly deciſive, for the firſt cruſade did not commence till 1096, nor terminate till 1100, before which period there is every reaſon to ſuppoſe the canal in queſtion was cut, as the reſearches of Guilini go ſo far back as 773. The cruſades ended in 1291; and had the effects been as great as poſſible, yet they cannot be imagined to have taken place immediately; it muſt be, after much conſultation and long reaſoning, that whole towns could be brought to co-operate in the execution of ſuch plans for the common good, from mere reports of the effect in diſtant countries and different climates. Another circumſtance, tending to prove that irrigation in Lombardy was much more antient than the cruſades, is that Theodoric, who began to reign in Italy, anno 493, publicly rewarded an African who had come thither in order to inſtruct the Italians in the art of irrigating lands, as Mr. Profeſſor Symonds has explained, with his uſual elegance, in his moſt agreeable paper on the effect of water in the agriculture of Italy *. Now if this art had been thus introduced, or more properly ſpeaking, revived in Italy above ſix hundred years before the cruſades were thought of, there cannot be much reaſon for attributing that improvement to the obſervations of thoſe frantic enthuſiaſts. It is remarkable that Count Verri, in his Hiſtory of Milan, ſays, he had long conceived that their irrigations were to be aſcribed to the Cruſades; but from paying more attention to the authorities quoted by Count Guilini, he gave up that opinion, and concurred in the idea

* Annals of Agriculture, vol. i. p. 421.

of

of a greater antiquity*: for which alſo P. Friſi ſeems to contend, when he ſays expreſsly that the canal made by the people of Pavia was more antient than 1177 †.

And here it may be worth remarking, that Pavia was the capital and reſidence of Theodoric, whence there reſults, at leaſt, a preſumption, if he ſent to Africa for a perſon to inſtruct the Italians in irrigation, that here was the field of his exertions, and that this very canal was the work of that ſovereign, not the leſs celebrated for thus laudably applying himſelf in a barbarous age to works that would do honour to the politeſt. But to return from this long digreſſion.

The ſame law that has been ſo effectual in watering Piedmont, operates here alſo, and has done even greater things. He who diſcovers a ſpring, conducts it where he pleaſes, paying a fixed compenſation ‡ for cutting through the properties of others. All rivers belong, as in Piedmont, to the ſovereign, who ſells the waters to ſpeculators for this moſt beneficial purpoſe of irrigation. In the diſtribution of it by ſale, they do not meaſure by the hour, as in Piedmont, but by the ounce; twelve ounces are a braccio, or twenty-two inches: an ounce of water is a ſtream that runs one braccio long and one ounce deep; and the farther the water has run, the higher is the price as being more charged with manure.

As an example of the beneficial influence of this law, I was ſhewn between Milan and Pavia, a ſpring that was diſcovered two miles from the lands of the diſcoverer, the properties of many perſons lying between him and the ſpring. He firſt bought the property of the perſon in whoſe land it was ſituated, which was eaſily done, as it was too low to be there of any uſe; then he conducted it by a trench at pleaſure the two miles, paying the fixed price for cutting through his neighbours lands; and, having gained it upon his own, preſently changed poor hungry arable gravel into a very fine watered meadow.

Near Milan a watered meadow ſells at 800 livres the pertica (321. 15s. the Engliſh acre;) and the rent of ſuch is about 30 livres (1l. 5s. the Engliſh acre.) This muſt not, however, be claſſed high; for there are lands that riſe to 4000 livres, (163l. the Engliſh acre.) In land at 800 livres or 1009 livres, water often makes half of the value; that is, the rent to the owner of the land will be 15 livres to 20 livres, and as much to ſome other perſon for the water.

In viewing a great farm ſix or ſeven miles from Milan, in the road to Pavia, I found that all the watered meadow was mown four times; and that what was watered in winter, *prati di mercita*, five times. Such is the value of water here, that this farm, which watered is rented at 20 livres the pertica, would not let at more than 6 livres without water, the ſoil being gravel. The irrigation of the *mercita* begins in October, and laſts till March, when it is regulated like all other meadows. All in general begin in April, and laſt till September; and if there be no rain once in ſeven to fifteen days. An

* *Storie di Milano*, tomo i. p. 354.

† *Con tutte queſto però, ſe imparzial mente ſi vorrá avere riguardo al tempo, alle circonſtanze, alla maeſtria del lavoro, il naviglio di Milano che forma la communicazione del Teſino, e dell' Adda, potrà paſſare per il capo d'opera, che abbiamo in queſto genere. Per quanto dice il Sigonio nel libro 14 del regno d'Italia all'anno 1179, pare che il primo tronco de lo ſteſſo Naviglio, del Teſino ad Abbiate Graſſo, foſſe già dai tempi più antichi incominciato e finito dai paveſi per irrigare le vicine loro campagne. Fù nell'anno 1176 che i Milaneſi conduſſero lo ſteſſo cavo da Abbiate a Corſico, e a Milano. Nuova Raccolta*, vol. iii. p. 97.

‡ Theſe laws, relative to the conduct of irrigation, are as old as the republic of Milan; firſt compiled into a collection of ſtatutes and cuſtoms in 1216. (*Verri* p. 239.) They were reviſed and collected by order of Charles V. and are in full force to this day. *Conſtitutiones Dominii Mediolanenſis Decretis et Senatus Conſultis. Gab. Verri.* Folio, 1747. *De aquis et fluminibus*, p. 168.

ounce of water running continually from the 24th of March to the 8th of September, is worth, and will sell for 1000 livres. When arable crops want water, it is always given.

Milan to Mozzato.—Every considerable spring that is found becomes the origin of a new canal. They clear out the head for a bason, and sink casks by way of tunnels for the water to rise freely, and without impediment from mud or weeds. There are usually three, four, or five of these tunnels at the bottom of a bason of twenty or thirty yards.

Milan to Lodi.—Of all the exertions that I have any where seen in irrigation, they are here by far the greatest. The canals are not only more numerous, more incessant, and without interruption, but are conducted with the most attention, skill, and expence. There is, for most of the way, one canal on each side of the road, and sometimes two. Cross ones are thrown over these on arches, and pass in trunks of brick or stone under the road. A very considerable one, after passing for several miles by the side of the highway, sinks under it, and also under two other canals, carried in stone troughs eight feet wide; and at the same place under a smaller that is conducted in wood. The variety of directions in which the water is carried, the ease with which it flows in contrary directions, the obstacles which are overcome are objects of admiration. The expence thus employed, in the twenty miles from Milan to Lodi, is immense. There is but little rice, and some arable, which does not seem under the best management; but the grass and clover rich and luxuriant; and there are some great herds of cows to which all this country ought to be applied. I cannot but esteem the twenty miles as affording one of the most curious and valuable prospects in the power of a farmer to view; we have some undertakings in England that are meritorious, but they sink to nothing in comparison with these great and truly noble works. It is one of the rides which I wish those to take, who think that every thing is to be seen in England.

Lodi.—Examining some watered meadows in high estimation, I found the following plants most predominant, and in the order in which I note them:—1, *Ranunculus repens*; 2, *Trifolium pratense*; 3, *Chicorium intybus*; 4, *Plantago lanceolata*; 5, *Achillea millefolium* *; and about one-fifth of the whole herbage at bottom seems what are properly called grasses. These rich meadows about Lodi are all intersected by ditches, without hedges, but a double row of pollard poplars; all on a dead level, and no drains to be seen. They are now (October) cutting the grass and weeds in the ditches, to cart home for making dung. The meadows are commonly cut thrice; but the best four times. The produce of hay per pertica, six fassi of one hundred pounds, of twenty-eight ounces at the three cuts. Price of the first, 8 livres per fass; of the second, 5 livres; of the third, 4½ livres. They water immediately after clearing if there be no rain. Without irrigation, the rent of the country in general would be only one-third of of what it is at present. In forming these watered meadows they have very singular customs:—all are broken up in rotation; flax sown for the first crop, and their way of laying down is to leave a wheat stubble to clothe itself; clover is prohibited by lease, from an absurd notion that it exhausts the land; and that it is not so good as what the nature of the ground gives; but on worse land, the other side of the Adda, they sow clover.

* There appeared but few signs of ray-grass, yet it certainly abounds in some of their fields: opinions in Lombardy differ concerning it; Sig. Scannagatta praises it highly (*Atti di Milano*, tom. ii. p. 144;) but one of the best writers in their language, Sig. Lavezari (tom. i. p. 8[illegible]) wonders rather at the commendations given of it in other countries, he mistakes the French name. it is not *sainfoin*; the *lojessa* of Lombardy, and the *ray-grass* of England, is the *lolium perenne*; the French sainfoin is the *heaysarum onobrachis*.

Lodi

Lodi to Codogno.—All this country the ſame as about Lodi, a dead level, cut into bits of from three to ten acres, by ditches, without hedges, and planted with double rows of poplars and willows, all young, for they are cut as ſoon as the ſize is that of a thin man: here and there one is left to run up to timber. I remarked, in the meadows fed, that the *ranunculus* is avoided by the cows as much as poſſible. I expected in one meadow to find it the *acris*, but much of it was the *repens*. All this country is alternately in tillage; ridge and furrow every where: no permanent meadow. After ſeven miles, the road being natural, ſhews the ſoil to be a loamy ſand, binding with rains *.

Codogno.—Thirteen pertiche of watered land neceſſary for a cow, the hay of which is cut thrice and it is fed once; ſuch land ſells at 300 livres, and lets at 10 livres, free from tax. The whole country is ploughed by turns, being down to clover for the cows four years.—1. Flax, and then millet; 2. maize; 3 wheat and clover; and reſts then for feeding cows; white clover comes, but it is bad for cheeſe. The reader will note, that this opinion differs from that near Milan.

Codogno to Crema.—Croſſing the Adda, from the Lodizan, there is more arable, and much fewer cows.

Milan to Vaprio.—In this line there are ſome dairies, but not many. Near the city there is much graſs, all cut into patch-work of diviſions, and planted ſo as to ſeem a wood of willows; after that much tillage, though all is flat, and there are no great exertions in watering. But the road paſſes by that fine navigable canal de Marteſano from Milan, which at Vapprio is ſuſpended as it were againſt the hill, twenty feet above the Adda—a noble ſpectacle.

Before we quit the Milaneſe, it will be proper to make a general remark on the conduct of their irrigation, that ſome evils are obſerved to attend the practice for want of a better foreſight and more attention; particularly from the gradual enlargement of the carrier canals and ditches; they clean them with ſo much care, for the ſake of obtaining the mud, as a manure, that theſe are every where become too wide for the quantity of water they convey. Sig. Bignami has written upon this point very rationally, in his diſſertation *Sull' abuſo di ſcavare i canali delle roggie ed i foſſi nel Lodigiano;* where he aſſerts that one tenth part of their lands is occupied by canals and ditches. The evils are numerous, it is not only a conſiderable loſs of land, but it is an equal loſs of water, for when an oncio of a given run of water is purchaſed, there is a great difference between its ſir fitting a great or a ſmall channel, as in proportion to the ſize will be the quantity of uſeleſs fluid. The atmoſphere is alſo proportionably contaminated, for this great breadth either of ſtagnant water, when irrigation is not actually going on, or, what is worſe, of mud, in ſo hot a climate, muſt be peſtiferous; and to this have been attributed the diſtempers which have frequently made ſuch havoc among their cattle. Another inconvenience is, the great expence of all erections, bridges, ſluices, &c. &c. which are in proportion to the breadth of the channels. The remedy is obvious, it is to forbear all cleanſing for the ſake of mud; to let all aquatic weeds, and other plants,

* As well watered as this country is, yet in the ſpring 1779 the ſeaſon was ſo dry, that where the Lambro enters the Po, men and women croſſed the Po itſelf on foot, as if merely a rivulet; the rector of Alberoni himſelf paſſed it, and the water reached only to his middle. The damage was great every where, but fatal in the Lodizan, where herds of cows were obliged to be ſent out of the country to be paſtured; the miſchief, the greater, as from 1774 to 1779 they had augmented their cows 5000. (*Opuſcoli Scelti*, tom. vi. p. 56.) The climate has, however, in all ages, been ſubject to great droughts. From May 1158, to May 1159, there fell no rain in Lombardy; wells and ſprings all dried up. The Emperor paſſed the Adige, with his army, near Verona, without boats; and the Count Palatine of Bavaria paſſed thus the Po, below Ferrara. *Giulini*, tom. vi. p. 175.

grow

grow freely *on the banks, edges, and ſides* of the canals, and to clear them in the middle only. Such a conduct would in time quite choak them up, and enable the farmer to keep his canals exactly to their right width. All theſe plants covering the ſpaces, which in canals often cleaned, are bare earth or mud, would be very beneficial towards preventing and decompoſing that noxious, and mephitic, and inflammable gas, always iſſuing from ſuch mud, which is ſo peſtilential to animals, yet ſo ſalutiferous to plants; for mud covered with plants that are ready to feed on its exhalations, is much leſs miſchievous than that which is expoſed to the rays of a burning ſun. Count Carlo Bettoni, of Breſcia *, has practiſed a method which acts on ſimilar principles; namely, that of burying or fixing willows or poplars to the ſides of the rivers whoſe banks he wanted to preſerve, with the precaution only of keeping the ends of the branches out of water; he finds that they grow vigouroufly in this ſituation, and by ſtopping the mud of the current, form a ſolid bank; this, on a ſmall ſcale, might certainly be executed: alſo in the canals of irrigation, as it has been remarked, by the author already quoted, in the *Atti di Milano.*

VENETIAN STATE.—*Vaprio to Bergamo.*—There is a mixture of watered meadow in this line, but the quantity is not conſiderable. In ſome which are old, I found a good ſprinkling of *trifolium repens*, *chicorium intybus*, and *plantago lanceolata*; but alſo much *ranunculus* and rubbiſh. In the plain cloſe to Bergamo, they clean the irrigation-ditches at the end of November, and harrowing them with a faggot, to thicken the water, let it immediately on to their meadows, which is ſaid to enrich them much.

To Breſcia.—The Venetian State, thus far, is a conſiderable falling off from the Milaneſe, in reſpect to irrigation; the country is not without canals, but neither the number nor the importance of them is to be compared to thoſe of Milan. From Coquillio to Breſcia there are many channels, yet the lands are not half watered.

Breſcia to Verona.—The road paſſes for ſome diſtance by a very fine canal, yet the quantity of watered land in this route is but inconſiderable. Before we arrive at Lago di Guarda, there are a few meadows never ploughed, that have a good appearance, but none from the lake to Verona. On the whole, theſe forty miles, for want of more irrigation, are not comparable to the Milaneſe or to Piedmont. This route ſo much to the north, gives the traveller an opportunity of ſeeing a chain of conſiderable cities, and of obſerving the effects of one of the moſt celebrated governments that has exiſted; but a better direction by me would have been by Cremona and Mantua.

Verona.—The meadows here are cut thrice, and fed once; are never ploughed, if good and well watered. Water for irrigation here, as in all Lombardy, is meaſured with great care and attention, by what is called the quadrata, which is a ſquare foot (the Veroneſe foot is to the Engliſh about as twenty are to twelve). Twelve quadrate are ſufficient to water five hundred campi of rice grounds (about three hundred and eighty Engliſh acres), and the price of ſuch a quantity of water is commonly about 3000 zecchini (1425l. ſterling). The wheels in this city for raiſing water for irrigating the gardens are very complete; they receive the water as in Spain, into hollow fellies. There is one in the garden of the Daniele monaſtry for watering about four campi, which are ſaid to yield a revenue of 300 zecchini; which is 100 zecchini, of 9s. 6d. per Engliſh acre. The wheel raiſes the water about twenty-five feet, receiving its motion by the ſtream; a low wall, croſſing the garden, conveys the water in a trench of maſonry on its tops; and a walk paſſing along the centre of the garden, the wall there is open to admit the path, the water ſinking in a ſyphon, and riſing on the other ſide to the ſame

* *Henſieri ſul Govern. de Fiumi.* Breſcia, 1782.

height,

height, paſſes again along the wall, in the ſame manner as canals are carried under roads in Piedmont, &c. The wheel has double fellies, for giving water on both ſides into troughs, which unite in the ſame receiver, and the waſhers for giving the motion are placed between the fellies. The whole apparatus complete, coſt three hundred zecchini.

To Vicenza.—There are in this tract of country ſome perennial meadows watered quite upon a level, which have a very good aſpect: the exiſtence of ſuch ſhould make us queſtion the propriety of the Lodizan ſyſtem of ploughing, where water is ſo regularly at command.

Padua.—The country from Vicenza to this city, is not watered like many other diſtricts of Lombardy. The practice is very well known; and there are rice-grounds about Padua, but not nearly the uſe made of water which is found in the Milaneſe; yet the rivers in the Venetian ſtate belong to the prince, as well as in other parts of Italy, and water is conſequently to be bought: but there is not the ſame right to conduct it at will, and conſequently the water itſelf might almoſt as well not exiſt.

To Venice.—In this tract I ſaw no irrigation, though the whole is very low, and quite level.

Venice.—The ſame admirable law that takes place in the Milaneſe, for enabling every man to conduct water where he pleaſes, is found in the Venetian ſtate alſo, contrary to my information at Padua; but ſo many forms are neceſſary, and the perſon who attempts it muſt fight his way through ſo much expenſive litigation, that it is a dead letter, and nothing done in conſequence. I was farther told, that it is a principle of the Venetian code, that not only all rivers, but even ſprings, and rain itſelf, belongs to the Prince: an idea worthy of this ſtern and tyrannical government.

Ecclesiastical State.—*Bologna.*—I ſaw no watered lands.

Tuscany.—I ſaw no irrigation in Tuſcany; and from the intelligence I received, have reaſon to believe, that the quantity is not conſiderable; ſome meadows, however, are watered after mowing. The beſt methods I heard of, are about Poggio, Caiana, Villa Sovrana, ten miles from Florence.

Dutchy of Modena.—The quantity of irrigated land in the Modeneſe, is but ſmall; it does not amount to more than ſix biolche in eighty, nor have they more than fifteen perpetual water-mills in the whole territory. From Modena to Reggio, there is a ſprinkling of theſe meadows, the canals for which, taken from the Lecchia, are not large; all, whether watered or not, are manuring with black well rotted compoſt, and have a very neat countenance.

Dutchy of Parma.—The country from Reggio to Parma is not without watering, but the quantity is inconſiderable; there is, in this line of country, a great inferiority to that from Modena to Reggio, not the ſame neatneſs nor attention in any reſpect; there are mole-caſts in the meadows, a thing unſeen before; and though there are much cattle and ſheep, yet the features of the huſbandry are worſe. From Parma to Firenzuola, not an hundredth part of the country irrigated, yet there is a good deal of graſs, and in ſome places in large pieces.

Piedmont.—*Paveſe, &c.*—For ſome miles in the Sardinian territories, there are a good many meadows, but very few watered. I paſſed two ſmall channels of irrigation, but the quantity was inconſiderable. If a map of theſe countries be examined, there is the appearance of many rivers deſcending from the Appenines, and falling into the Po, but the uſe made of them is ſmall. It is remarkable that all the way by Tortona, Alexandria, &c. to Turin, the quantity of irrigation, till almoſt cloſe to the laſt mentioned city, is quite inconſiderable, not one acre perhaps in a thouſand. What an idea can be

framed of Piedmont; by thoſe who paſs through it from Mont Cenis, and quit it for Milan or Tortona, without ſeeing it from Turin to Coni?

SAVOY.—In the mountains of the Alps, by Lanciburgh, &c. they mow their watered meadows once only, but in the plain twice.

From this detail of the irrigation of Lombardy, it muſt be apparent, that for want of laws ſimilar to thoſe which take place fully in Piedmont, and the Milaneſe, and partially in the republic of Venice, no ſuch exertions are ever likely to be made in a free country. We can in England form no navigation, or road, or make any treſpaſs on private property, without the horrible expenſive form of an act of parliament; we cannot even incloſe our own property, without the ſame ceremony. Nor is it only the expence of ſuch applications, but the neceſſity of them generates oppoſition at every ſtep, and a man muſt fight his way through country-meetings, through attorneys, agents, counſel, witneſſes, and litigation,—in a manner odious to every liberal feeling, and at a ruinous expence, before he is at liberty to improve his own eſtate, without any detriment to others; every idea of ſuch works, therefore in England, as we have ſeen common in Lombardy, is viſionary and impracticable; and we muſt continue to view, with eyes of envy and admiration, the noble exertions which have been made and perfected in that country, and which, in truth, very much exceed any thing we have to exhibit in any walk of agriculture in this iſland:—an example to hold up for imitation, and an ample field of practical ſtudy.

SECT. II.—*Of Cattle.*

PIEDMONT.—*Nice to Coni.*—In this part of the Alps, the breed of cows reſembles the Alderney, in horn, colour, and ſize. They are uſually cream-coloured, or pale yellow, but with black around their eyes, black tail, and ſome of them legs alſo, like the Poitou breed in France.

Turin.—Price of a plough ox, 150 livres to 300 livres. A good cow, 110 livres.

The method of fattening in the plain, the cattle called *moggie*, from the mountains of Suza and Buſſolino, as given by the Agrarian Society, deſerves attention. They begin by putting them in airy ſtables, healthy, and well lighted, bleed once or twice, anoint the bodies of the cattle, dreſs them well at leaſt twice a day, give water mixed with rye-flour, in the evening feed with a certain mixture called *condut*, compoſed of elm leaves, with ſome hay of the ſecond or third cut, or clover-hay, to which they join a meſs of well pulverized walnut-oil-cake, on this mixture they pour ſome boiling water, well ſalted, and ſtir up the whole together, and mixing at the ſame time an eymena of bran, according to the number of *moggie*; the pap, thus prepared, is turned into a tub, and ſome hours after it is given to the cattle, who eat it with an avidity that marks a delicious food; continuing this method ſome time, they caſt their hair, grow ſmooth, round, fat, and ſo improved, as to ſell frequently at double the price *.

MILANESE.—*Milan.*—Examining the ox-ſtalls of a farmer near the city, I found his ſtandings 6½ feet wide, and made almoſt like my own at Bradfield, except that inſtead of a ſtep and gutter, he has a trench at their heels, in the Dutch method. I thought the houſe too cloſe and hot, yet there were air-holes, but all ſtopped, the farmer ſaying that a cow gives more milk for being kept hot, but in ſummer the ſheds are open and quite cool. They begin to work their oxen at four years old, and continue till ten, ſometimes till twelve, but after ten they do not fatten ſo kindly. They all draw, as in

* *Memorie della Società Agraria*, vol. i. p. 73.

Piedmont,

Piedmont, by the withers; fine ones ſell at 30 louis the pair. A pair will draw four thouſand pounds of hay, each pound twenty-eight ounces, on a waggon that weighs one thouſand pounds more, with wheels not three feet high, and wooden axles. Four thouſand pounds at twenty-eight ounces Milaneſe, are ſix thouſand ſeven hundred and ſeventy-ſeven pounds, at ſixteen ounces Engliſh; and three tons being only ſix thouſand ſeven hundred and twenty pounds, this is a conſiderable load in ſuch a vehicle, and ſhould imply no bad method of drawing, yet I cannot like it ſo well as by the ſhoulders. They are never ſhod, except on ſtoney hills.

This farmer fattens his oxen in winter with lintſeed cake, giving five pounds or ſix pounds a day to each beaſt, and as much hay as they will eat; the beſt for them, that of meadows not watered. When it is ſcarce, they ſubſtitute forage of maiz, ſown thick for mowing, and this hay they cut in a chaff-box, to the length of one or two inches.

But the great object in the vicinity of Milan, as well as in the Lodizan, &c. is a dairy; I viewed ſeveral conſiderable ones, from four to ſeven miles from the city, and had my inquiries very ſatisfactorily anſwered. Some of the particulars deſerve noting, for I ſhould remark, that all the dairies of the Milaneſe are very famous, and few produce cheeſe that is not ſold under the general name of Parmeſan. They buy in about the end of October, Swiſs heifers, with calf, generally at two years and a half old, under contract, that if they do not calve, or do not give milk from four teats, the bargain is void: the price on an average, 13½ louis. They keep ſo long as till fifteen years old, or ſo long as they breed. Till the age of ſix years, the milk augments annually, but afterwards diminiſhes. They are ſold lean at 15 to 36 crowns each, 6 livres (at 8d.) The beſt two or three cows in a dairy of forty or fifty, will give thirty-two bocali of milk per diem; but in common, twenty-four, or eighteen Engliſh quarts. The cows are moſtly of a dark brindled red colour, with ſmall horns *; and it deſerves noting, that the beſt made cow in fifty-five, *quaſi* fattening, was the beſt milker.

In reſpect to cheeſe, a dairy of fifty-five, which I viewed, make three hundred and twenty in a year, at forty pounds on an average, or twelve thouſand eight hundred pounds, or two hundred and thirty-two pounds per cow (three hundred and eighty pounds Engliſh), at 90 livres per one hundred pound; in all per cow in cheeſe, 7l. 10s. Engliſh. The butter amounts to twelve pounds to every cheeſe of forty pounds, at 26*ſ.* per pound: three thouſand eight hundred and forty pounds, which at 26*ſ.* are 4992 livres (166l. 8s. Engliſh, or per cow, 3l.) The calf, at eight or fifteen days, ſells at 72 livres per one hundred pounds nett, and being weighed alive, twenty-eight pounds per one hundred pounds is the deduction. I do not clearly underſtand this note, on reviſion, but as veal at Milan is about the ſame price as in England, I ſhall call the calf 10s. To fifty-five cows, ſeven ſows and a boar are kept, which breed forty hogs that are reared; twenty ſold in ſpring, and twenty in autumn, average 1½ louis each; in all for hogs, 60l. Engliſh.

		£.	s.	d.
Recapitulation, per cow.—	Cheeſe,	7	10	0
	Butter,	3	0	0
	Calf,	0	10	0
	Hogs,	1	2	0
		12		

* It is remarked by an Italian writer, that in chuſing cattle, the horns muſt not be overlooked; the larger theſe are, the worſe. The Swiſs cows that are reputed the beſt, have ſmall horns; and on the contrary, thoſe of Sardinia, that are poor milkers, have very long ones. *Elementi D' Agricoltura di Mitterpacher*, tomo ii. p. 257, notes.

The account of a dairy taken next door to me, in Suffolk, is complex, and ſuch as not one man in twenty keeps accounts particular enough to aſcertain; it may therefore be eaſily ſuppoſed, that greater difficulties occur in a foreign country, through the medium, not only of a different language, but of different manners and cuſtoms. This account was given partly as an actual one of fifty-five cows, and partly by calculation; but in ſuch a number of cows, there will be ſome dry; there will not be fifty-five calves ſold from fifty-five cows; hogs muſt, for ſuch a produce, have ſome corn given them, though not much; and I ſhould conſider this eſtimate rather as what a good cow ought to do, barring accidents and exceptions, than as a fair average of a large number.

The expences, however, are high, as well as the produce; among others, there are the following to this dairy of fifty-five:

		liv.
Chief dairy-man, the *cazaro.*—	Wages,	130
	Five moggii of maize, at 20 livres,	100
	One ditto wheat, at 34 livres,	34
	Half ditto rye, at 18 livres,	9
	One ditto of white rice,	44
	One hog, of 120lb. at 15*ſ.*	90
	Lodging, fuel, ſalt, and butter,	
The under dairy-man, *ſotto cazaro.*—	Wages,	127
	Board in the farmer's houſe,	
	Three men, at 70 livres each,	210
	$3\frac{1}{2}$ moggii maiz, at $10\frac{1}{2}$ livres,	210
	$\frac{1}{2}$ ditto rye, at $3\frac{1}{2}$ livres,	63
	$\frac{3}{4}$ ditto rice, at $2\frac{1}{4}$ livres,	99
	$\frac{1}{2}$ ditto millet, $1\frac{1}{2}$ livres at 18 livres,	27
	Towards board, 20 livres,	60
	Land enough for their flax,	
	Two children, for the hogs, at 30 livres,	60
	Five faggots per diem, at 5 livres the 100, 4 livres if large,	60
		1323

Here are above 44l. Engliſh, without knowing at what to calculate the three other articles; probably they would raiſe it to above 20s. a cow. There is likewiſe the wear and tear of the dairy implements, ſalt, oil, and many ſmall articles; beſides hazard, and the loſs by difference between the ſale of old cows and the purchaſe of young. In regard to the management of the cows, they eat in winter, that is, from the middle of December to the end of March, nothing but hay, and the allowance is twenty one pounds of twenty-eight ounces, each cow per diem; this is 2184 pounds of Milan, or 3559 pounds Engliſh, or about $1\frac{1}{2}$ ton. This ſingle article of expence, without any other conſideration, would make a very great produce neceſſary, or the farmer could not live. They milk at break of day, and ſometimes before it; in the evening, two hours before ſunſet: the quantity moſt in the morning. The beſt cheeſe is made when the cows feed on white clover, which comes of itſelf the ſecond year, where red clover was ſown, which occaſions a vulgar notion here, that red clover changes into white. This ſecond year's white clover is better than perennial meadows for cheeſe. For one fortnight in a year, they ſoil their cows,—the laſt half of March,—and the graſs goes thrice as far

as when eaten in the field; yet they never do it at any other ſeaſon. The moſt ſingular circumſtance is that of their ſtalling their cows to empty racks moſt of the day, and all the night; they are turned out at eight or nine in the morning for three or four hours, and all the reſt of the twenty-four they have nothing. I inquired particularly into the motives for this very extraordinary practice, and was aſſured it was neceſſary to make good cheeſe, as without it the milk would not have the requiſite richneſs. During ſome ſeaſons of the year, and in very wet or bad times, they give them during this faſt, a ſmall quantity of hay, but the practice is confined to ſuch times, and is an exception from the general rule, which is decidedly that the cows muſt not eat graſs at pleaſure. It is ſo very ſingular a practice, as certainly to deſerve experiment in England. The French practice of milking thrice a day, is quite unknown.

The method of making the cheeſe known in England by the name of Parmeſan, becauſe the city of Parma was once the *entrepot* * for it, was an object I wiſhed to underſtand as well as poſſible. The idea is, that all depends on ſoil, climate, and irrigation; and the boaſted account that the Kings of Spain and Naples, in order to make ſimilar cheeſe in their territories, at leaſt for their own tables, had procured men of ſkill from the Milaneſe for this purpoſe,—contribute to give a readineſs every where in anſwering queſtions, as they are all very well perſuaded, that ſuch cheeſe can be made no where elſe.

In order that I might view the proceſs to the beſt advantage, the Abbate Amoretti conducted me to the dairy in queſtion, belonging to the houſe of Leti. It is, in the firſt place, neceſſary to obſerve, that the cheeſes are made entirely of ſkimmed milk; that of the preceding evening mixed with the morning's milk; the former had ſtood ſixteen or ſeventeen hours, the latter about ſix hours. The rennet is formed into balls, and diſſolved in the hand in the milk; the preparation is made a ſecret of, but it is generally known that the ſtomach of the calf is dreſſed with ſpices and ſalt. The rennet was put to the milk at twelve o'clock, not in a tub, but in the cauldron or boiler, turned from off the fire-place at ten o'clock; the heat 22 degrees of Reaumur's thermometer, and common to 24 degrees (81¾ Fahrenheit's), the atmoſphere being at the ſame time 16⅔ (70 Fahrenheit's). In ſummer, the whole operation is finiſhed by eight in the morning, as the heat ſours the milk if in the middle of the day. At one o'clock the cazaro examined the coagulation, and finding it complete, he ordered his ſotto cazaro to work it, which he did, with a ſtick armed with croſs wires, as deſcribed in *Annals of Agriculture*; this operation is, inſtead of cutting and breaking the curd, in the manner it is done in England, free from the whey. When he has reduced it to ſuch a firmneſs of *grain* as ſatisfies the cazaro, it is left to ſubſide, till the curd being quite ſunk, the whey is nearly clear on the ſurface; then the cauldron which contains it, is turned back again over the fire-hearth, and a quick fire made, to give it the ſcald rapidly; a ſmall quantity of finely powdered ſaffron added, the ſotto cazaro ſtirring it all the time with a wired machine, to keep it from burning; the cazaro examined it from time to time, between his fingers and thumb, to mark the moment when the right degree of ſolidity and firmneſs of grain is attained. The heat was 41 degrees (124½ Fahrenheit), but it is often 44 (131½ Fahrenheit). When the cazaro finds it well granulated by the ſcalding, he orders his deputy to turn it off the fire, and as ſoon as a certain degree of ſubſidence has taken place, empties about three-fourths of the whey, in order the better to command the curd. He then pours three or four gallons of cold water around the bottom

* This is the general opinion, but a late writer has ſhewn that it is an error, and that Parma and Placenza were once the country in which the beſt was made.

of the cauldron, to cool it enough for handling the curd; then he bends himſelf into the veſſel in a formidable manner to view it, reſting his feet againſt the tub of whey, and with his hands looſens the curd at bottom, and works it into one maſs, ſhould it not be ſo already, that it may lie conveniently for him to ſlide the cloth under it, which he does with much apparent dexterity, ſo as to incloſe the whole in one maſs; to enable himſelf to hoiſt it out the eaſier, he returns in the whey, and taking out the curd, reſts it for ten minutes or a quarter of an hour in a tub to drain. The vat, in the mean time, is prepared in a broad hoop of willow, with a cord round to tighten it, and widens or contracts at pleaſure, according to the ſize of the cheeſe. Into this vat the curd is fixed, and the cloth folded over it at top, and tucked in around. This is placed on a table, ſlightly inclining, to carry off the whey that drains from the cheeſe; a round plank, three inches thick, ſhod with iron like the block-wheel of a barrow, is laid on the cheeſe, and a ſtone about thrice the ſize of a man's head on that, which is all the preſs uſed, and there ends the operation. The cheeſe of the preceding day was in a hoop without any cloth, and many others ſalting in different hoops, for thirty or forty days, according to the ſeaſon,—thirty in ſummer, and forty in winter. When done, they are ſcraped clean, and after that rubbed and turned in the magazine every day, and rubbed with a little lintſeed oil on the coats, to be preſerved from inſects of all ſorts. They are never ſold till ſix months old, and the price 90 livres the one hundred pounds of twenty-eight ounces.

The morning's butter-milk is then added to the whey, and heated, and a ſtronger acid uſed, for a freſh coagulation to make whey-cheeſe, called here *maſco-pino*. Little ones are kept in wooden caſes, in the ſmoke of the chimney.

Upon this detail, I am to remark, that the rules that govern the operation of making cheeſe in the Milaneſe ſeem to be very different from thoſe which are attended to in England. Theſe are marked diſtinctions.

I. Starving the cows during ſo large a portion of the day.
II. Breaking and ſcalding the curd.
III. Light preſſing.

The mode of feeding which theſe farmers purſue, they think eſſential to good cheeſe; and that if the cows were allowed to paſture all day long, it would be difficult, perhaps impoſſible, to make cheeſe of equal goodneſs. It would be idle to reaſon upon a propoſition, which demands in other countries experiment alone.

The breaking of the curd and ſcalding is abſolutely different from ours, and apparently a method infinitely ſuperior; our breaking by the hand, and cutting into cubes and other ways, are groſs, and render it difficult for the ſcalding whey to operate equally; but in the Italian method it is broken minutely, and by keeping the heating whey conſtantly ſtirring, the ſcald is equal throughout, and operating on the minutely divided curd, muſt take a more regular and a greater effect. I deſcribed to the cazaro the method uſed in England, and aſked his opinion, on which he replied—*Il voſtro formaggio in quel modo non poul'eſſere troppo buona: come è la grana?* By referring to the grain of the cheeſe, it is plain he thought that the texture of it demanded this way of operating.

In regard to preſſing, all with whom I converſed were much againſt any very heavy weights, and ſeemed of opinion, that a good cheeſe might be preſſed into a bad one. Firmneſs, weight, and ſolidity, they contended, ſhould ariſe from the right fabric of the cheeſe, and from adapting the fabric to the land and to the ſeaſon, but never from much preſſing, which would be a bad way of remedying either evils or miſtakes. Hoved cheeſes are very rare with them, which may poſſibly proceed not only from the granu-

lation given by their method of ſcalding, but alſo from their moderate preſſing. However it muſt not be imagined that the excellency and peculiarity of Parmeſan cheeſe depend altogether upon the fabrication; their own idea is probably very juſt, that ſoil, climate, and irrigation come in for their ſhare; and that the abundance of certain plants has an influence; but this laſt cauſe will not have much ſtreſs laid on it, ſince clovers are found to be the chief plants.

I ſhall not quit this moſt intereſting diſtrict, without recommending it ſtrenuouſly to thoſe who would wiſh to give themſelves a completely good farming education. For ſuch a purpoſe Codogno would be a proper ſtation; for it is ſurrounded by great dairies, and contains the largeſt magazines of cheeſe of any town in Lombardy; the conſequence of which is a regular intercourſe with all the dairy maſters of the Lodizan. Much uſeful knowledge might here be gained in irrigation, and in making cheeſe.

The oxen of this dairy farm begin to work at four years old; and are ſold at eleven or twelve years old, from 9 to 12 louis each. A pair will plow eight pertiche a day; and draw, waggon included, three thouſand pounds, of twenty-eight ounces, twenty miles.

Mozzata.—They practiſe a ſingular method of fattening oxen here. They put chopped ſtraw, a little hay, the leaves of maiz, and alſo ſome flour of it, into a tub, and pour in hot (not boiling) water; and as they give this ſoup to the beaſt, they add for each a handful of oil-cake in powder, or for want of that, of elm leaves in powder; oak leaves they give green. Another food in uſe is powdered acorns, which is given inſtead of oil-cake, and with good ſucceſs.

Lodi.—The cows here are generally of a blood red colour, long, lank, and ill made. In a dairy of ninety, they make for one hundred and ſixty days, one cheeſe a day, of ſixty pounds; but in April and May it is of ſeventy pounds. After St. Martin, the beginning of November, greater, but not every day; in ſeven months, one hundred and ninety cheeſes; and in the reſt of the year one hundred and ſeventy; in all, three hundred and ſixty; this is two hundred and forty pounds per cow. In feeding, they give the cows nothing from four in the afternoon till nine the next morning, unleſs the weather be very bad, and then a little hay. In making the cheeſe I found very little variation in the practice from that already deſcribed. For the coagulation, or what our dairy wives call ſetting, they heat the milk gradually, and take care not to do it too much at once. In the great heats of ſummer they ſet it without heating and even put ice or ſnow (with which every dairy is provided) to cool it; but they do not conſider the heat at ſetting to be a point of much conſequence, as a little more or leſs heat makes no difference. The curd is broken exactly as deſcribed before, with two machines, one of wood only, the other armed with fine wires, and the ſaffron added during that operation. Scald it as at Milan, and, upon doing this with ſkill, they aſſert, that much depends; as by more or leſs ſcalding they can remedy certain deficiencies in ſoils and plants. The reſt of the operation is juſt as already deſcribed, and all the utenſils the ſame; the weight ſomething leſs than at Milan; and here as great enemies to much preſſing. The cheeſe made yeſterday is all honey-combed in the coat, and as yellow as wax, a pale yellow: whereas at Milan the new cheeſes are quite white. Theſe honey-combs wear out by ſcraping after ſalting, which is for thirty-ſix or forty days; they are then coloured, and there is given to them an appearance of a whitiſh cruſt, or effloreſcence artificially. They are preſerved by oiling, as at Milan. Good cows give about five gallons of milk per diem; the beſt of all, ſix. Sixty cows require one hundred pertiche for ſix months in ſummer.

Codogno.

Codogno.—The produce per cow is here reckoned at one hundred pounds of cheeſe*, at twenty-eight ounces, at 22½ *ſ.* per pound, and eighty pounds of butter at 24*ſ.* The calf ſells at 20 livres, at fifteen days old; and the produce of hogs, twelve ſows to one hundred cows, which pay about 10 livres per cow.

	Milaneſe. liv.	*ſ.*	*Sterling.* £.	*s.*	*d.*
100 lb. cheeſe, at 22½ *ſ.* -	112	10	3	15	0
80 lb. butter, at 24*ſ.* -	96	0	3	4	0
Calf, - - - - -	20	0	0	13	4
Hogs, - - - - -	10	0	0	6	8
	238	10	7	19	

Thirteen pertiche of land are neceſſary to carry a cow through the year, which they cut for hay thrice, and feed once. Such land bought, ſells at 300 livres, and lets at 10 livres. The greateſt dairy in the country, one hundred and ten cows, and the price 10 louis each. In ſummer they milk at four o'clock in the morning, and at ſun-ſet. Make the cheeſe at eleven in the forenoon; in winter at any time. Skim all the milk, and never ſet it for coagulation without heating it by fire. In other reſpects, the manufacture is conducted as already deſcribed. They colour the coats with earth, and the whitiſh efflorescence is given with rye-meal. When the graſs is oldeſt, it always gives the beſt cheeſe, but the produce, after being down four years, declines ſo much, that the almoſt general practice is to plough it.

View the magazine of cheeſe at Codogno, of Sig. Bignami, and of Sig. Stabilini;—the latter are immenſe. Moſt of it is ſold in Italy, much in Spain, and leaſt of all in France; there is not a ſolid cheeſe in that kingdom that is eatable, and yet they conſume little Parmeſan!

Codogno to Crema.—Meſſrs. Bignami had the goodneſs to conduct me to a great farm, two miles from Codogno, in the way to Crema;—here I found that coagulation takes, according to the ſeaſon, from one to four hours; in ſome parts of the Milaneſe the cazaro informed me that they ſet the milk without warming: here never; always heat it by fire. The caggio (rennet) is in balls about twice as large as a pigeon's egg, put in a linen coarſe cloth, and rubbed, holding it in the milk, till it is diſſolved. In this dairy after three hours coagulation, the milk was as hot as if freſh from the cow. Quantity of ſaffron, a quarter of an ounce to a cheeſe of ſixty pounds—945 pounds of milk, of twenty-eight ounces, make a cheeſe of ſixty pounds weighed ſix months after. The ſame quantity of milk in ſpring and in autumn, makes more cheeſe than in ſummer. Beſt and moſt from old graſs, but a cazaro who really underſtands his buſineſs, will make all alike; and the idea here is that fabrication is all in all. A cheeſe of thirty pounds will be as good as one of a hundred pounds. The ſcalding in their manner is

* This is the general idea; but let it be noted, that the particulars of two dairies I took, one of which was near Milan, were different; one two hundred and thirty-two pounds per cow; the other near Lodi, two hundred and forty pounds per cow; yet there is near Milan, a notion, that the produce is one hundred pounds per cow. The difference, probably, is this, that upon a general calculation of all the cows of a diſtrict, good, bad, and indifferent, dry, and giving milk, the quantity is one hundred pounds; but in certain capital dairies, and reckoning only the cows *in milk*, it is more than double.

to

to granulate the curd, and, united with ſo ſmall a preſſure, leaves cavities in the texture of the cheeſe, that fill with an oleaginous liquid, and form the peculiar excellence of Parmeſan cheeſe. With the methods uſed in England, ſuch cavities ſpoil a cheeſe. I muſt, however, remark that ſuch Parmeſan as was common many years ago, in which theſe cavities, and their contents were of a texture that would allow of drawing out like a thread of glue, is not ſo common now. The ſolid cheeſe, without cavities, common at preſent, is not much better than our North Wiltſhire, and is apt to dry much ſooner, if equally kept. *Quære*, if this declenſion of quality is not to be imputed to their ploughing all the country? When their cheeſe gained its great reputation, it was made from old meadows; now all is from arable land. Here it is kept five or ſix years—never till ten. Walking with the farmer, the maſter of eighty cows, into his fields (1750 pertiche), I begged him to pick the plants in the order of his eſtimation for cheeſe, which he did;—firſt, *trifolium repens;* ſecond, *trifolium pratenſe* and *plantago lanceolata* equal; third, *chicorium intybus*. Theſe he eſteemed capital. The *ranunculus repens* bad; all the graſſes, properly ſo called, bad, on compariſon with thoſe above; but *lolium perenne* the beſt, if it come naturally; bad, if ſown. *Gallega officinalis* bad. They ſometimes do not ſow any thing to make a meadow, leaving the wheat-ſtubble to cover itſelf; a barbarous practice, ſince they confeſs that in the firſt year it yields little. There were dung-hills in moſt of the fields, well mixed and rotten, to be ſpread in winter. Feed the cows, in winter, only with hay, and twenty pounds, of twenty-eight ounces, the daily allowance; the price now 7½ livres per one hundred pounds. I forgot to remark, that all the milk trays are of copper; and that ice is in every dairy, to put into the churns with the cream. The cows are here fed, as every where elſe in the Milaneſe, but a few hours in twenty-four; yet longer than in ſome diſtricts, for they are abroad ſeven hours; they eat nothing while tied up in the ſheds.

In 1733, there were in the Lodizan one hundred and ninety-ſeven dairies: in 1767 there were two hundred and thirty-ſix, each of which had one hundred and twenty cows, on an average, making two hundred and ninety cheeſes each dairy per ann.; in thirty-four years increaſe - thirty-nine dairies, four thouſand ſix hundred and eighty cows, eleven thouſand three hundred and ten cheeſes, and value 848,210 livres *. This is Count Carli's account, but I ſuſpect an error †, as I heard no hints of any decline; and at Codogno, the dairies were calculated, apparently with attention, at two hundred and thirteen each, making three hundred and ten cheeſes in a year, or ſixty-ſix thouſand and thirty cheeſes, of fifty pounds each, or 3,301,500 pounds, of twenty-eight ounces, at one livre a pound; this makes 110,047l. and the account I received was, that, of this quantity, two-thirds were exported.

In regard to the origin of this cheeſe, it deſerves notice, that it is not three centuries ſince this great advantage of irrigated meadows has been here known; and I may obſerve, that the Ciſterſian monk who has written ſo well—*Sull' Irrigazioni de Prati*, in the *Atti della Societa Pat. di Milano*, ſeems to admit, that the original manufactures of Parmeſan cheeſe was in the territory of Parma; and refers to original papers for ſhewing that Milan was ſupplied three centuries ago with this cheeſe from Parma. A clearer proof of this cannot be produced, than that in the ledgers of the monaſtery of Chiaravalle, there are entries of the purchaſe of cheeſe from Parma, which, moſt aſſuredly, could not have taken place, if ſuch cheeſes had been made at home. A[illegible] ſeems to be con-

* Carli, tom. i. p. 317.

† It muſt be a groſs error to calculate the dairies at one hundred and twenty cows, on an average; for in all my inquiries I heard but of one that reached one hundred and ten.

firmed

firmed by the account of the entry of Louis XII. into Pavia, in 1499, given by Franceſco Muralto, juris conſulto of Como, who ſays,—"*Multa fuere per Papienſes dono regi tradita et inter cætera formæ centum caſci Placentinæ civitatis.*" It is alſo worth obſerving, that though they did not make good cheeſe at this period, (as we may judge, from their buying it elſewhere,) yet ſome cheeſe was made at Tecchione, a farm belonging to them, of the weight of fourteen pounds per cheeſe, as it appears by their ledgers for the year 1494.*

Venice.—This city is ſupplied with beef from Boſnia, Carinthia, Styria, and Hungary: at preſent the export from thoſe countries is prohibited, on account of ſupplying the Emperor's armies in Hungary. Mutton from Dalmatia, and Boſnia.

Ecclesiastical State.—*Bologna.*—In their cow-houſes they have the ſame ſtep at the heels of the beaſts as I have in my own, and which I copied from Mr. Bakewell many years ago; but they have applied it to their horſe-ſtables alſo, which I never met with before; yet it is an obvious improvement, which well deſerves imitation. The floors of their ſtalls are level.

Tuscany.—Though the quantity of cattle of every kind in this country is much inferior to what it ought to be, yet is the art of fattening an ox well underſtood. In ſummer they feed on mown clover and *ſaggina* (the great millet, *holcus ſorgum*); alſo on maiz, and a mixture of all ſorts of corn and pulſe, called *farrana*. Price of an ox, 45 ſcudi (at 5s. 8d.); a cow, 30; a ſheep, 1; a horſe, 20; a hog, 7.

Account of a Dairy of Eight Cows, at Vilamagna, in Tuſcany, belonging to Conte Orlando del Benino.

	Scud.	*liv.*	*ſ.*
Eight cows coſt	85	2	0
Produce, firſt year, in butter and milk,	83	4	2
Second year, value of the cows and three calves,	92	3	4
Produce.—Calves.	44	3	15
Milk and butter,	78	6	9
	127	3	4
Cheeſe,	3	0	4
Value of the cows,	84	3	4
	214	6	12

Expences.

Value of the cows,	92	3	4
Dairy man,	12	0	0
Bran and Bull,	6	5	4½
Saggina and clover ſown for them,	3	0	0
Profit,	100	5	3½
	214	6	12

* Atti, vol. ii. p. 220, 221.

Which

	Scud.	liv.	ſ.
Which, on eight cows, is per cow, - -	12	16	8
At 5 livres, 15ſ. the dollar, and 47d. a dollar ſterling	£3	3	6
Which is per week, - - -	0	1	3

In which experiment almoſt the whole of this was profit, becauſe no fewer cattle of any other ſort were kept; but it muſt be obvious, that 1s. 3d. a week is, according to our ideas, a very poor return for keeping a cow *. I copy this account from Sig. Paoletti, with whom I had the pleaſure of conferring perſonally on agriculture, and who informed me, that at Villamagna they begin to work their oxen at two years and a half old; they change ſome every year; and gain by their improvement, while worked, about 6 ſcudi (of 5s. 8d.) the pair, on an average, per annum; buy at 70 ſcudi, and ſell at 76. Cows give two fiaſce of milk per diem, during eight months; price 4ſ. each.

MODENA.—Regiſter of all the live-ſtock in the Dutchy of Modena, taken in June 1771:—Oxen, forty-two thouſand ſix hundred and fifteen; cows ſixty-one thouſand four hundred and forty-five; calves of one year, twenty-four thouſand one hundred and and ſeventy-two; calves, twenty-one thouſand three hundred and twenty-ſix; horſes, eight thouſand three hundred and thirteen; mules, eight hundred and thirty-ſix; aſſes, eleven thouſand five hundred and forty-three; hogs, one hundred and thirty-ſeven thouſand three hundred and twenty-ſix; ſheep, three hundred and twenty-nine thouſand and fifteen; goats, thirty-five thouſand five hundred and eighteen. Augmentation in the reſt of the year; great cattle, twelve thouſand; ſmall, thirty eight thouſand.

PARMA.—Many and great dairies in the Parmeſa; ſome to ſixty cows, and numbers from twenty to thirty; and thoſe who have a few cows, carry their milk to ſome neighbouring dairy, and receive cheeſes in proportion to the quantity; but this cheeſe has not the reputation at preſent of being ſo good as that of the Lodizan. As this country gave its name to the beſt cheeſe in Europe, and once certainly made the beſt, I was deſirous of knowing how far the mode purſued in the manufacture differed here from that of the Lodizan: in the dairy of a farmer of the Count de Schaffianatti, I had this opportunity. The apparatus is nearly the ſame, except that the ſtick with which the curd is broken, and which in the Lodizan is armed with croſs wires, is here only a buſh, the branches of which are drawn a little together by a ſtring; this is not ſo effective as fine wire, and is a variation in a point of importance in giving a fine grain. I have remarked already, that the board which in preſſing is laid on the vat, is in the Lodizan one and a half or two inches thick; here it is five or ſix inches, and heavy; and the ſtone uſed to preſs it four or five times larger, yet the cheeſes here are not often more than half the ſize of the others; this variation in a circumſtance that cannot be uneſſential certainly deſerves notice; if ſo very light a preſſure in the Lodizan is given, the cheeſe of which is ſuperior to all others, it undoubtedly ſhould lead the farmers of Parma to examine whether the inferiority of their cheeſe does not ariſe wholly or in part from theſe variations; the country, it is true, is not watered to one-tenth of what the Lodizan is, and the cows feed in perennial meadows, inſtead of the paſturage of arable land. The trays here are of wood, inſtead of copper for the milk; and it is ſkimmed, as at Lodi, before making the cheeſe. The coagulation is made uſually in three quarters of an

* Penſieri, p. 233, 236.

hour, if the milk be what they call wholeſome, that is, if it have no particular quality that demands a variation, in which caſe it is coagulated in half an hour: they vary the ſcalding alſo; for bad milk they ſcald with a fierce quick fire, but good is done more gently. In managing the lump of curd, when ſettled to the bottom of the boiler, they vary alſo; they preſs it with a circular board, fixed at the end of a ſtick or handle, and then get a milk tray under it, and when they have hoiſted it out, they leave it to drain in that tray about half an hour; at Lodi, ten minutes, or at moſt a quarter of an hour. The common price of the cheeſe 30 livres, (2½d.) the peſo (twenty-two pounds Engliſh). I taſted it at the table of the Count de Schaffianatti, and alſo at Parma, and the inferiority to the Lodizan is great.

The attention of giving ſalt to cattle and ſheep here, as in every other part of Italy, is regular; they even conſider a plenty of ſalt as ſomewhat eſſential to having proper ſtocks of thoſe animals, and gave me an inſtance which is remarkable. In the Courſi di Monchio, a valley in which the biſhop is the ſovereign, there is no gabelle on ſalt, and therefore given much more plentifully to cattle and ſheep, the conſequence is, that the numbers of both are much greater, proportionably to all other circumſtances than in any other diſtrict.

SAVOY.—They reckon at Laneſburgh, that three goats are equal to one cow; the price here is 11 livres to 12 livres. At Iſle, in Alſace, a good goat ſells from 12 livres to 30 livres French, in common 20 livres. Some there are ſo good that two equal a cow, but at Tour d'Aigues, in Provence, it takes four to equal a cow, the price 10 livres or 12 livres French.

SECT. III.—*Of Sheep.*

Nice.—I here obſerved what appeared very ſingular, a flock of ſheep brought down from the mountains to drink the ſea-water, which is I ſuppoſe to ſave ſalt. The gardeners near the town generally keep a few ſheep, confined in ſties, juſt as hogs in England, and fed with the offal of the garden. I took a ſpecimen of the wool of one of theſe ſtie-fed ſheep, more like goat's hair than wool, it ſells at 6*ſ.* the pound.

Turin.—The price of ſheep from 10 livres to 15 livres. The fleece is eight pounds, at 5*ſ.* unwaſhed.

MILANESE.—Throughout this country I ſcarcely ſaw any ſheep, and thoſe few bad.

VENETIAN STATE.—*Bergamo.*—Here I met a flock, an ugly breed, large, long, and ill made, without horns, the wool coarſe and hairy, large hanging ears, and their throats ſwollen almoſt like wens. They have a fabric of woollen cloth here, but the wool comes from Apulia.

Breſcia.—The fleeces here are four and a half pounds, (about two and three quarters pounds Engliſh), and ſell at 25 livres to 30 livres per peze, not waſhed, which is about 1s. Engliſh the pound.

Verona.—Price 30*ſ.* the pound of twelve ounces (1s. the pound Engliſh).

To Vicenza.—Meet ſeveral flocks; all are clipped twice a year, the breed polled, and much like thoſe, but not ſo large, as on the other ſide of Verona.

Vicenza.—The ſorts of ſheep known here, are *Gentili*, which live only in the plain, not being hardy enough to reſiſt the mountain cold; their wool is longer than of the other ſorts. *Toſetti*, theſe reſiſt the cold well; have ſhort wool, clipped twice. *Monte Padouana*, are of a much greater ſize; the fleſh excellent; are clipped twice. Price of wool, 2½ livres per pound unwaſhed (the ounce of Vicenza, twelve to the pound is to the Engliſh ounce as 690 is to 480, as I found, by buying an ounce weight there); this price is equal to about 11d. the Engliſh pound. It is remarkable, that they here feed their

their ſheep in winter, with a mixture, made in a hole in the ground, trodden well in, of *zucca* (gourds) cut in ſlices; the mark of grapes, vine-leaves, and green graſs. Price of wool here:—Gentili preparata, 6 livres; Gentili non preparata, 5 livres 5*ſ.*; Toſetta, 5 livres to 6 livres; Teſino, 2 livres 10*ſ.*; Padouana, 4 livres; all by the pound of twelve ounces. The ounce is to that of England, as 690 to 480; the pound therefore equals ſeventeen ounces Engliſh; 5¼ livres is above 2s. 6d. Engliſh.

Padua.—Price of ſheep about 2 ducats. In common they clip but once a year; fleece three pounds.

Ecclesiastical State.—*Bologna.*—Price of a good ſheep, 14 pauls (7s.) Produce, per ſheep, of a flock;—lamb, 4 pauls; wool, 3½; cheeſe, 4; in all 11½ (5s. 9d.) per annum; half to the proprietor, half to the peaſant. The wool three pounds at twice ſhearing, and at 13 baiocchi the pound (10 baiocchi to the paul, of 6d. leſs a fraction). It is waſhed on the back before ſhearing. There are 25,000 to 30,000 ſheep in the Ferrareſe.

Tuscany.—*Bologna to Florence.*—Some flocks of ſheep are ſcattered on the Appenines, of a ſmall and rather pretty hornleſs breed. Near Florence, they cut the lambs in June, and ſell them in September, to thoſe who keep them till March. Price, in September, 10 livres, (7s. 1d.) and in March, for 18 livres (12s. 9d.); there are few, or none, of two or three years old. They clip but once; weight of the fleece four pounds, at 1¼ paul per pound; waſhed before clipping (Engliſh weight and money, the fleece is three pounds, at 1s. 1d. per pound). Wethers are in ſome places fattened on oats, barley, and hay, and ſometimes with a few raves.

Villamogna.—Thirty-ſix ſheep kept on four hundred and eighty-three ſtiori of land, each giving three pounds of wool (equal to two and a quarter pounds Engliſh), at this year, 1½ paul, and laſt, 1⅛ (the paul 5½d.); clipped but once a year, in May, and waſhed before. Each ſheep ¾ of a paul in cheeſe. Thirty-ſix bring, on an average, twenty lambs, which ſell, at five or ſix weeks, at 4½ pauls; at ſix months, 7 or 8 pauls.

Two hundred ſheep from the mountains, that paſs the winter in the Maremma, the expence 157 ſcudi, compoſed of twenty rams, fifty ewe hoggits, one hundred and thirty breeding ewes; fifty lambs kept for ſtock.

	Scud.	*Liv.*
Fifty lambs for ſtock,	39	2
Eighty lambs ſold,	12	0
Wool, 7 lb. the pair, at 10 ſcudi the 100 lb.	70	3
Cheeſe, 2½ lb. to each ſheep, at 6*ſ.* per lb.	11	0
	132	1
Half to the proprietor,	66	
Expence.		
Winter food in the Maremma,	40	0
Two hundred ſheep to a ſhepherd; 24 ſtari of corn for the winter,	12	0
Paſſes, charges, duties regulated at 6 ſcudi the 100 ſheep,	12	0
Expences of travelling, utenſils, fees, &c.	8	0
Paſturing in ſummer in the mountains,	4	0
	76	
Half to the proprietor,	38	
Nett profit to proprietor,	28	

Which profit, being on a capital of 157 ſcudi, is 18 per cent. *

* *Tramontani Del Accrieſcimento Del Beſtiam e Toſcano*, 8vo. p. 96.

It is an obſervation of Sig. Paoletti *, that draining the Maremma, and cultivating it, have leſſened the number of ſheep in Tuſcany conſiderably: great flocks, before that period, were kept in ſome mountainous diſtricts in ſummer, and paſtured in the Maremma in winter; but cultivation has changed this. He does not ſay that the people of the Maremma have ſheep of their own, but obſerves, that it is a diminution in number. This is ſufficient to prove, that the improvements in the Maremma have been on falſe and vicious principles; for if they had been on juſt ones, ſheep would have been increaſed inſtead of leſſened.

Sig. Paoletti recommends that all ſheep ſhould have one pound of ſalt in March, and one in October, which makes them healthy, and to yield more wool †.

MODENA.—Wool here ſells from 2 livres to 3 livres per pound, waſhed; equal to 12½d. per pound Engliſh. There are many ſheep in the mountains, but miſerable things; clipped twice a year.

PARMA.—In going to Firenzuola, I examined the wool of a flock, and found it more like the hair of a dog than wool; and all I ſee, which are but few, are alike hairy; moſt of them polled, but ſome with horns; not badly made, but feel worſe. Theſe are the flocks whoſe wool, Monſ. de la Lande ſays, is ineſtimable!

PIEDMONT.—*Paveſe.*—On entering the King of Sardinia's country, and for many miles, ſee little parcels, of from ten to twenty-five, of poor dirty houſed ſheep, feeding on the young wheat. Aſti was formerly famous for wool;—*nelli antichi tempi famoſa per la ſua lane* ‡; but the country contains none at preſent to ſupport that character.

SAVOY.—Unwaſhed wool, 10*ſ.* the pound of twelve ounces; fleece three pounds to ſix pounds; it goes to France or Piedmont. Sheep, 9 livres to 12 livres each. Though cattle and ſheep are the great riches of all Savoy, yet no care taken of the breed, and the wool all bad §.

The price of wool, regard being had to that only which is long, coarſe, and bad, (but not the worſt,) may be ſtated in Lombardy at 1s. Engliſh, the Engliſh pound; ſuch would ſell in England, I calculate, at about 7d. or 8d. per pound.

CHAP. XXXIII.—*Of the Management of Arable Land.*

THE minutes I took, concerning the conduct of arable land, may, for the ſake of clearneſs, be thus divided:—1. Of the courſes of crops. 2. Of ſeed and product. 3. Of the culture of certain plants. 4. Of implements. 5. Of manures.

SECT. I.—*Of the Courſes of Crops.*

PIEDMONT.—*Chentale.*—A year of fallow common in five or ſix years, during which year the land is never watered, only expoſed to the ſun. Wheat is ſown on fallow; on clover land; always after hemp, becauſe the land is in high order; the ſame after maize, if well manured; in which caſe alſo after millet ſown in June, otherwiſe meſlin or rye. The fallow for wheat, commonly follows buck-wheat, called here *fromentin*, or millet. Clover is ſown among rye in March, never among wheat. Millet de cottura is ſown in June; millet de reſtuba the end of July, after wheat; and then dung well for hemp.

* *Penſieri*, p. 207. He mentions their being *prodigioſamente piu numeroſe*, a century before, p. 221.
† *Penſieri*, p. 208.
‡ *Giulini*, tom. xii. p. 19.
§ I may here add a miuute on goats; Marquis Ginori introduced the Angora goats into Tuſcany, for making camblets, which manufacture has ſucceeded ſo well, as to be termed *riſpettabile manifattura* by Paoletti. *Penſieri*, p. 220. And it is obſerved by another writer, that if they are not ſuperior to the antient camblets of Bruſſels, they are at leaſt equal to them. *Ragionamente ſopra Toſcano*, p. 167.

Turin.—In ſome arable land I viewed, a few miles from this capital, the following moſt extraordinary courſe was purſued, and was mentioned to me as being not uncommon; 1. maize; 2. wheat; 3. wheat; 4. wheat; 5. maiz; 6. wheat; 7. wheat; 8. wheat.

The year of maize being conſidered as ſuch a preparation, as to allow of three ſucceſſive crops of wheat. The practice however is barbarous. Upon the farm of Sig. Briolo, the following is the courſe;—1. maize; 2. wheat; 3. rye, and when the land wants repoſe, clover is ſown upon a ſmall part.

Vercelli.—Upon good wheat land;—1. maize; 2. wheat; 3. wheat; 4. rye. And in the rice grounds;—1. fallow; 2. rice; 3. rice; 4. rice. They have here an excellent practice, and it extends, more or leſs, over all Piedmont, which is to mow clover by the 10th of May, and to plow the land and plant maize, which ſucceeds greatly after clover.

MILANESE.—*Milan.*—The arable lands never repoſe; but a quick ſucceſſion is reaped. Two crops of bread corn are gained in one year, by ſowing maize in July, after wheat.

Milan to Pavia.—The courſe common in the rice grounds is,—1. rice; 2. rice; 3. rice; 4. fallow, and dung; 5. wheat, clover ſown, either with it in autumn, or upon it in ſpring; the former beſt; 6. clover; 7. clover; 8. clover; 9. flax, and then millet the ſame year: and then rice again as above.

Alſo,—1. wheat; 2. clover; 3. clover; 4. clover; 5. clover; 6. flax, and then maize; 7. wheat, and clover again. Sometimes after flax, coleſeed for oil. Another courſe,—1, 2, 3. clover; 4. maize; 5. rice; 6. rice; 7. rice; 8. fallow; 9. corn and clover.

In the Paveſe.—1. Rye, and then fallowed for, 2. wheat, ſown with clover in February, mown with the ſtubble, and then fed; 3. clover; 4. clover; 5. clover; 6. flax, and then millet; or inſtead of both maize; 7. wheat; 8. wheat, and left then ſometimes to paſturage under clover.

Mozzata.—A courſe common here,—1. clover; 2. winter flax; 3. lupines; 4. maize, for forage; 5. coleſeed; 6. cabbages; 7. panic; 8. hemp; 9. beans. This courſe will be found to occupy about twelve pertiche in one hundred, and to paſs in ſucceſſion over the whole, for the benefit of variation. Another,—1. wheat, and millet after; 2. common maize; 3. wheat and millet; 4. common maize; 5. rye and quarantino; 6. common maize; 7. rye and quarantino; 8. common maize. The aſſiduity with which they avoid a fallow, deſerves attention, and it is here effected, as in the ſouth of France, by means of a plant that is aſſerted by many to exhauſt.

Lodizan.—1. Wheat, ſown in October and reaped in June, and the land ploughed thrice and manured for 2. wheat again, and clover, called *ſpianata agoſtano*, which is fed till the following ſpring, but ſometimes ploughed the end of autumn; 3. flax; 4. millet. Another courſe, called *coltura maggenga*,—1. break up the layer for flax; 2. millet; 3. maize; 4. wheat, the ſtubble of which remains in *ſpianato agoſtano.*

Cremoneſe.—1. Wheat, ſown in October, and reaped in June, the ſtubble ploughed thrice for 2. wheat, upon which ſow clover the end of February; 3. clover, ploughed in November for, 4. flax, and then millet; 5. maize; 6. wheat.

Carpianeſe.—1. Maize; 2. wheat ſown in the ſpring with clover, which is mown with the ſtubble, and remains *ſpianata agoſtana;* 3. clover; 4. flax, and then millet; 5. rice; 6. rice; 7. rice.

VENETIAN STATE.—*Bergamo.*—The land here is conſtantly cropped,—1. wheat; 2. clover, mown in the ſpring once, in time for maize; 3. wheat; 4. clover. Alſo,—

1. clover,

1. clover, or millet; 2. maize; 3. wheat. By which courſes they have half or a third of their land in wheat every year.

Breſcia.—1. Wheat, and twenty pounds of clover-ſeed in March, per jugero,—the clover cut in Auguſt with the wheat-ſtubble, and then paſtured, in winter dunged:—2. clover, called this year *prato graſſo*, cut thrice; firſt in May, called *il maggiatico;* ſecond in Auguſt, called *l'oſtano;* third in September, *il navarolo:*—3. in March ſow flax, which is gathered in June, then plough and ſow quarantino, amongſt which, at the ſecond hoeing, ſow lupines for manure:—4. plough in the lupines, and ſow wheat in November, which is reaped in June; cut the ſtubble immediately, and ſow lupines or coleſeed for manure:—5. plough in October, and ſow wheat mixed with rye, reaped in June, and then ſow part with quarantino and part with panic:—6. if a crop of coleſeed is taken, it is ſown amongſt the maize whilſt growing, which cole is ripe in ſpring, in time to clear the ground for manuring and ſowing the common maize; if cole not ſown, remains fallow in winter, and ſow *melica* in ſpring,—the great millet.

Verona.—Here, as in all other parts of Lombardy, the land is never fallowed,—1. maize, called *grano turco:*—2. wheat, and when reaped, millet or *cinquantino;* this is the quarintino of the Milaneſe:—3. barley or oats, and when reaped, ſome other ſecond crop. Wheat is always ſown after maize, and that after barley or oats. No clover uſed here, except in rice-lands. In the rice-grounds,—1. wheat, reaped time enough for a crop of cinquantino; 2. maize; 3. clover; 4. rice, &c. &c. Beans are alſo ſown inſtead of maize, and wheat after them, and prepare for wheat much better. On the dry lands, ſuch as about the Lago di Guarda, &c. no clover, as the land is not good enough.

To Vicenza.—No fallow any where. There is a little clover, and very fine, but the quantity is ſmall: all wheat and maize, and ſcarcely any thing elſe.

Vicenza.—Wheat is always ſown after clover, and cinquantino after wheat; but nothing prepares ſo well for that crop as beans, ſo that they are called the mother of wheat, *madre della formento.* This idea, in Lombardy, is as old as Gallo, who remarks, that wheat ſucceeds after nothing better than beans, which *in graſſano maggiormente la terra, che non fa ogni altro legume*;* and this he refers to as a cuſtom of the Cremoneſe and the Mantuans. It is equally true in England; and ſuch a combination of authority ought to convince ſuch as yet want conviction, of the utility of beans as a preparation for wheat; more, perhaps, to be depended on than any other preparation whatever. A common courſe near this city introduced as a variety is,—1. maize; 2. wheat and cinquantino. A farmer cultivated a field during ſome years in this courſe, 1. maize; 2. wheat; 3. clover: and to preclude the neceſſity of dung, he uſed only the *vanga* (ſpade): for five years his crops were good, but afterwards declined greatly till he could not get even clover. They ſow wheat in October, and the clover-ſeed over it in March, if there is rain; the end of June the wheat is cut, the end of Auguſt the clover is mown for hay, and another ſmall crop again in October; here is, therefore, within a year, one crop of wheat and two of clover. The graſs is cut again in May, or beginning of the following June; a ſecond time in Auguſt, and a third growth plowed in for wheat, which is uſually a very great crop in this huſbandry.

Padua.—On all ſorts of land the moſt uſual huſbandry is,—1. dung for maize; 2. wheat; 3. wheat, and then cinquantino or millet, &c. Clover is ſown both in autumn and in ſpring; if the froſt is not very ſevere, autumn is beſt, but ſpring the moſt ſecure. It is cut once after the wheat is reaped.

Venice.—Sig. Arduino aſſures me, there is no fallow to be found in any part of the Venetian territory; they have not even a word to expreſs the idea—*l'anno di ripoſo*, is

* *Le Venti Giornate dell' Agricoltura. Breſcia*, 1775. 4to. p. 59.

a different

a different thing, and always means clover, or a ſtate of reſt, without any tillage. That gentleman's expreſſion pleaſed me much,—*La jachere è una ſciocca pratica in agricoltura.* The two great points on which the beſt agriculture of the Venetian ſtate turns, are maize on clover, and wheat on beans. All theſe plants are equally neceſſary upon a farm; and there is a peculiarity in clover as a preparation for maize, and equally in beans as preparatory for wheat.

Bologna.—In a very rich field near this city, which I viewed, the courſe has been, in 1787, wheat, which produced one hundred corbi, or twenty times the ſeed. In 1788, hemp, five thouſand pounds. In 1789, it is now wheat, and perfectly clean. This courſe of—1. hemp; 2. wheat, is perhaps the moſt profitable in the world, and brings to mind the noble vale of the Garonne, under the ſame management. If land will do for hemp they never fallow, but have ſome fields in the courſe,—1. fallow; 2. wheat, which ought to be conſidered as a diſgrace to Lombardy. 1. Maize; 2. wheat, is a courſe not uncommon. On the fallowed lands they ſow beans, provided they have dung. Very little clover, preferring fenugreek, which is ſucceeded by wheat. Vetches they ſow in autumn, and beans alſo, both for a crop, and alſo to plough in, in the ſpring, as a manure for hemp. With equal quantities of manure, beans give better wheat than hemp. Beans on Sig. Bignami's farm are now (November) ſix inches high on the tops of narrow ridges, but none in the furrows; theſe are for a crop, and infinitely too thick, I ſhould apprehend. Lupines alſo for ploughing in.

Tuscany.—In the Valdarno di Sura, Colini, Sieniſi, Piſani, Volterrana, they fallow, and their courſe is,—1. fallow; 2. wheat. After travelling ſo long in Lombardy without a fallow, it hurt me to find them common here. Clover is uſually made a preparation for maize in moſt parts of this country; and beans, where ſown, are reckoned the beſt for wheat. At Martelli, &c the courſe is,—1. beans, French beans, or maize; 2. wheat; 3. wheat; 4. wheat and rye, and no after-crop. In the Valdichiana, the following courſe, I am informed, is purſued,—1. maize and French beans; 2. wheat, and nothing after it; 3. wheat and then raves, and, in ſome places, clover added. At Villamagna, the courſe is,—1. *biade*, vetches, beans, &c.; 2. wheat; 3. wheat; 4. wheat. The firſt wheat produces nine or ten times the ſeed, if after beans; the ſecond ſix or ſeven; the third three or four: a degradation that ought to explain fully the abſurdity of ſuch a ſyſtem. In ſome diſtricts the following is the courſe;—firſt year, biadi, viz. beans, peaſe, chick-peaſe, French beans, tares, lentils, oats, maize, the great millet, ſmall millet, panic in part, clover, and oats, and, after cutting for forage, plough for ſome of the above. Second year, upon the land thus prepared, wheat is ſown, called *groſſo* and *ariſtata* mucked; or with half *groſſo* and half *gentili* (white wheat). Third year gentili wheat.

Modena.—The bad farmers in the Modeneſe are fallowiſts, and their courſe is,—1. fallow, ploughed firſt in May or June, in Auguſt the ſecond time, and the third in October, for ſowing, 2. wheat. But the better farms ſubſtitute beans, French beans, vetches, ſpelt, maize, particularly the laſt inſtead of a fallow. Upon ſoils that are very good, and manured, they have an execrable cuſtom of taking three crops of wheat in ſucceſſion; ſometimes throwing in clover with the wheat, which is plowed up in June for wheat again. When beans are ſown in autumn and ſtand the froſt, they yield much more than ſpring ſown.

The huſbandry practiſed by Sig. Bertolini, which is the beſt of the country is,—1. beans, ſown in October, and harveſted in May: then French beans, or formentoni, for forage, or thick-peaſe, or lentils; 2. wheat, the ſtubble ploughed thrice for,

3. wheat;

3. wheat; 4. maize, ſown in March. To Reggio they fallow ſome of their land every third year; but more commonly ſubſtitute maize, beans or ſomething elſe in lieu.

PARMA.—In the country about Vicomero, the common courſe is, 1. beans; 2. wheat; 3. maize; 4. wheat.

PIEDMONT.—*Tortoneſe.*—A common courſe here is,—1. beans; 2. wheat. Alſo,—1. melga (great millet); 2. wheat. But they have ſome lands in fallow courſes.

SAVOY.—At Laneſborough, the common huſbandry is that of a crop and a fallow: they plough in May or June, and again for the ſeed in Auguſt, when they ſow the rye; and they have no wheat.

From theſe notes it appears, that there is ſomething both to commend and to condemn in theſe Italian courſes. The rejection of fallows is pretty general; this is a good feature, and the great ſtreſs they lay on beans as a preparation for wheat, cannot be praiſed too much. On the other hand, there ſeems to be no idea of ſo proportioning the crops of a farm, as to make cattle and ſheep (kept on arable land) the preparation for corn: the culture of clover is not unknown, but ſcarcely extends further than to produce ſome hay. I no where met with artificial graſſes introduced on ſo large a ſcale as to ſupport a good flock of ſheep. In ſome diſtricts, the great plenty of watered meadow explains this deficiency; but there are more where it will not afford an apology. This objection, however, does not hold good in the Lodizan, where their immenſe dairies are ſupported on arable land, and certainly form one of the moſt curious ſyſtems of huſbandry that are to be met with in Europe.

SECT. II.—*Of Seed and Product.*

That reader who thinks ſlightly of the uſe of collecting a great maſs of facts in theſe inquiries has not, it is to be preſumed, reflected ſufficiently on the great importance, in every ſcience, of combining circumſtances apparently unconnected, in order for mutual illuſtration. He who collects ſuch facts, inſulated for a time only, may not live to ſee the effect of ſuch compariſons; but the gradation of knowledge is preſerved without interruption, and the uſes will undoubtedly be diſcovered.

Savigliano.—They reckon here that a farm of one hundred giornati, one third watered meadow ſhould yield 2300 livres clear of taxes, landlord's half.

PIEDMONT.—*Turin.*—Products of Sig. Briolo's farm:—wood, eight giornata; meadow, four; wheat, five; rye, five; maize, five. Yields to the proprietor for his half,

Ninety mines of wheat, at 3 liv. 10*ſ.*	315 livres.
One hundred and five do. of rye, at 2 liv. 15*ſ.*	236
One hundred and forty do. of maize, at 2 liv.	280
Wood cut at ſeven years' growth	71
Vines planted about the farm, 45 brenta of wine, at 5½ liv.	247
For landlord's half	1149

Total, 2298 liv
Wood, 71

2221 livres, product of nineteen giornata of arable meadow, or 116 livres per giornata (about 6l. per Engliſh acre); which is a very large produce. There are alſo mulberries enough to pay taxes; this land coſt 750 livres the giornata, and the wood 250 livres.

MILANESE.

MILANESE.—*Milan to Pavia.*—The crops are—Wheat, ſeven or eight ſeeds.—Rye, eleven ſeeds.—Maize, forty ſeeds.—Ditto quarantino, twenty ſeeds.—Millet, fifty ſeeds.

Wheat.

PIEDMONT.—*Chentale.*—A country proverb in this country is, that a good peaſant ſhould finiſh his wheat ſowing by the 19th of October. After hemp, clover, or fallow, wheat yields forty to forty-five mina per giornata, each mina forty-five pounds to fifty-two pounds, average forty-ſeven pounds, and the common price 3 livres to 3 livres 10*ſ.* but at preſent 3 livres 15*ſ.* But, including good and bad farmers, and all ſoils, the produce is not more than twenty-four mina: that is, twelve for the landlord and twelve for the tenant. They ſow four to four and a half; the common produce is, therefore, ſix times the ſeed, which is miſerable; the better crops between ten and eleven ſeeds. Allowing for the Piedmont pound, being about one-tenth heavier than the Engliſh (though only of twelve ounces), and that the giornata is not equal to an acre, their beſt crops, at forty-two or forty-three mina, will be near five quarters per Engliſh acre; and their average near three; which are not greater than might be expected. Their quantity of ſeed appears, however, to be immenſe, for it amounts to one hundred and ninety-nine pounds per giornata, which is extravagant: and makes it ſuſpicious, that the giornata here is larger that the legal giornata of the principality.

Savigliano.—They ſow here, of wheat, three and a half eymena, and reap eight times as much, in a good crop.

Turin.—They ſow five mina, or nine rabbii, and ten pounds to the giornata; of rye and oats, the ſame quantity; of hemp, three mina; maize, one-half; millet, one-half. Wheat produces twenty-five mina; or five times the ſeed; rye, thirty; maize, fifty to ſeventy; millet, twenty. The mina at forty-five pounds the crop of wheat is about five and a half coombs per Engliſh acre. For their land and climate, a miſerable crop; but as good, or better, than they deſerve, when their courſe of crops is conſidered.

MILANESE.—*Mozzata.*—Produce of wheat, eight ſtajo per pertica on the beſt land; five on middling; and three on the worſt.

There is a ſingular neglect in keeping wheat in this country: being ſhewed the granaries at two houſes, in which the quantity was conſiderable, I was ſurprized to find that, where ſome of the windows were open, the room ſtunk very much; the ſcent particular; and examining the wheat, I found the ſurface all either covered, even to ſhining, with the webs of the wevils, or elſe in ropes, hanging together by it, and the flies buſy; the wheat was two or three feet thick, and had not been ſtirred. In a third granary, to which I went for ſatisfying my curioſity, in the hands of the owner, (for the other two belonged to noblemen, and were managed by intendants,) I found in the ſame condition; and all agreed, that to ſtir the wheat is bad, as it makes the whole heap alike; whereas, by not moving it, the ſurface only ſuffers. On this, I thruſt my arm into the heap, to examine the interior, which all ſtunk dreadfully. Perhaps neither the wevil, nor any other inſect, may live deep in the heap; but, for want of airing, the wheat ſtinks; not to mention the ſurface, which is a loſs of five or ſix per cent. A moſt barbarous ſyſtem of management. It is worth remarking, that the only good way of keeping wheat is in the ſtraw: ſtacks ſhould be built on capt ſtones, to keep vermin out, and the corn thraſhed as wanted.

Mozzata.—The product here, on three diviſions of ſoil, are, per pertica, the meaſure the ſtajo,—

	Good.	Middling.	Bad.
Wheat	8	5	3
Rye	8	5	4
Millet	8	5	3
Common maize,	10	6	4
Ditto Quarantino,	6	4	2
Lupines,	8	6	4
Panic,	6	4	2
Clover hay, three hundred and fifty pounds of twenty-eight ounces per pertica, at 3 mowings; one three-fourths ton per acre.			
In money by corn, without mulberries or vines,	24 liv	15½	9¾

For the landlord's ſhare, I ſuppoſe. And, in reſpect to the country in general, if four ſquare miles be taken around Mozzata, of ſix parts, three are good, two middling, and one bad. Average corn produce, 18½ livres. The common notion is, that two-thirds of the groſs produce go towards maintaining the farmer, ſupporting the cattle, wear and tear, taxes, &c. and that one-third is nett to the proprietor.

		Livres.
Produce of one hundred pertiche, at 18½ livres		1850
Vines, proprietor	150	
—— tenant	150	
		300
Mulberries, two thouſand pounds, leaves, at 4 livres per hundred		80
		2230
Deduct one tenth of corn product, damaged by vines		185
		2045
Deduct one eighth of corn for damage by hail; the produce of vines is nett, this is allowed for		209
Total nett produce		1836
Hence, therefore, it does not quite reach 18½ on the average.		
Proprietor, one third of corn		555
——, vines		150
——, mulberries		80
		785

Or, per pertica, 7¾ liv. (31s. per Engliſh acre *.)
Such land would ſell for 145 liv. per pertica (28l. 16s. per Engliſh acre).

Codogno.—The ſeed and produce of the crops here, are,—wheat, ſow one ſtara and reap ſix times as much; maize, ſow one fourth of a ſtara, and get twenty for one; millet, ſow one-eighth ſtara, and reap ſix ſtara; rye, ſow one-half ſtara, the produce eight ſtara; rice ſow one ſtajo, gain ſixteen rough, or quite white.

* The 6⅛ pertica per acre Engliſh, corrected from ſome of the preceding proportions, from intelligence very lately received.

A Bergamaſque writer obſerves, that wheat cultivated with the plough commonly yields four, five, and ſix times the ſeed; but cultivated with the ſpade, twelve, fourteen, and ſixteen times that quantity *, and this of greater weight; a ſure proof of their miſerable tillage.

Breſcia.—Arable products in this vicinity, are,—wheat, three ſacchi, of fourteen pezè each pezè twenty-five pounds being about ſix ſeeds. The pezè of twenty-five pounds Breſcian, being equal to 14¾ French, makes two hundred and ſix pounds French per ſack, or two hundred and twenty-four pounds Engliſh: the three ſacks, therefore, are ſix hundred and ſeventy-two pounds Engliſh, on a jugero of four pertiche; this is ſcarcely twelve buſhels the Engliſh acre, reckoning four one-fourth pertiche in that acre †. Maize ſown in March, produces ſix, eight, ten ſacchi, each twelve pezè of twenty-five pounds. This is about twenty-eight buſhels to the Engliſh acre, ſuppoſing a buſhel of maize to be fifty pounds; but quarantino does not yield more than five ſuch ſacks. Melico (the great millet,) fifteen ſacchi, of ten or eleven ſuch pezè. Flax, ſix to nine pezè, at 20 livres to 25 livres the pezè; this is about one hundred and twenty-five pounds the Engliſh acre, and 170 livres at 6d. Engliſh, 4l. 5s. and per Engliſh acre 4l. Millet gives three ſacchi, of eleven pezè. Clover, three hundred pezè of hay, at three cuts; meadows yield the ſame as clover, but are paſtured in autumn. Price of hay 70 livres the *carro*, of one hundred pezè. Three hundred pezè equal four thouſand eight hundred and twenty-ſeven pounds Engliſh, and per Engliſh acre, four thouſand five hundred and twenty-two pounds, which we may call groſsly two tons; a very poor crop for three mowings.

To Verona.—In this line of country, the Lombardy ſyſtem, of planting all the arable lands with rows of pollards, for training vines, is at its height. There is a good deal of it from Bergamo to Breſcia; and ſome are ſeen in paſſing from Vaprio to Bergamo, but not ſo univerſally as here. It is a moſt ſingular ſyſtem; rows of maple, aſh, or poplar, are planted from four to ſeven yards aſunder, and rows of vines at their feet, which are trained up thoſe trees, and in feſtoons from tree to tree; the ſpace is cultivated for corn. They do not ſeem to approve of a ſingle ſtem for theſe pollards ſo much as ſeveral, for they have three or four, about ſix feet high; cropped every ſecond year, to prevent too great a ſhade. In ſome places, mulberries are mixed with theſe common foreſt trees: one mulberry, and then two aſh or maple. In ſome rows, beyond all doubt, the vines are trained equally on the mulberries as on the other trees; but not generally, being faſtened only to the ſtems of the mulberries. The better the land, the farther aſunder are theſe rows, even to ſixty or ſeventy feet; but, in worſe land, much nearer. All the way, the ſoil is a ſtoney gravel, of a different appearance in quality, but where holes are dug for trees, it looks better.

Verona.—Wheat here yields five or ſix times the ſeed. They ſow one hundred Veroneſe pounds upon a campo of land, and reap five hundred and fifty, which is about two buſhels of ſeed per Engliſh acre, and the produce eleven buſhels. We have not, upon the pooreſt lands in England, ſo wretched a crop: to what are we to attri-

* *Cantuni, Inſtruzioni Pratiche intorno al Agricultura.* 8vo. 1788, Bergamo. p. 16,

† In the new edition of Agoſtino Gallo, the editors give a line for the length of a Breſcian inch (*oncia*) [illegible] which is the length of 1 [illegible]th inch Engliſh. Twelve of thoſe oncia make one [illegible] oblong ſquare, twenty cavezzi l[illegible] = 48[illegible]; and the one product b[illegible] Engliſh acre; perhaps the editors of that new edition have made an error, in ſtating 30,709 French feet in their jugero of 4 pertiche.

bute it, if not to general bad management, united with the execrable ſyſtem of incumbering their fields with pollards and vines. They ſteep their wheat ſeed in lime-water twelve hours, to prevent the ſmut.

Vicenza.—The thirty-two miles from Verona hither are all, except a ſmall quantity of irrigated land, lined into the ſame rows as already deſcribed, from twenty-five to thirty yards aſunder. Wheat is ſown cloſe under them; but with maize ſix yards are left on each ſide not cropped; and, in ſome pieces, thoſe twelve yards are ſown thick for forage, as not equally wanting ſun; a ſure proof that they admit the damage of the trees, and provide againſt it as well as they can. In ſome grounds preparing for wheat, manure is ſpread as far as the roots of the trees extend, but no further. What a ſyſtem, to give dung to elms and maples, and to force wheat to grow under their ſhade!

Wheat has now (October 23.) been ſown a month or ſix weeks; it is high, and thick enough to hide a hare. The borders of theſe ſown lands are dug clean away, as deeply as in Eſſex.

Maize produces about nine one-half ſacchi the campo. Inquiring here into the eſtimated damage reſulting to corn from the plantations of trees in arable land, I was told, that the loſs in one-tenth of wheat, and one-half of maize, but to clover none. The trees here are all walnuts, for training vines to, the damage done by them, agreed to be very conſiderable. Of wheat they ſow three ſtari, and the produce eighteen to twenty; of maize one, and the crop thirty to thirty-five; of cinquantino, half a ſtara, produce ſixteen; of buck-wheat one-fourth, the return ſix. In the farms around the celebrated Rotunda, maize produces five ſacks, each one hundred and fifty pounds: a ſack is four ſtari, and the ſtara about three pecks; this is fifteen buſhels, and not ſixteen, the acre. They are ſometimes troubled with the ſmut; Sig. de Boning, Preſident of the Academy of Agriculture, has tried liming and lime water, as a prevention, but without any ſucceſs. Of maize they have a new ſort, that carries a male flower on the top of the cone, and this ſort always fills with grain to the very point, which is not the caſe with other kinds.

In reſpect to the exhauſting quality of crops, they reckon that the maize which carries the flower at top takes moſt from the land: 2. millet: 3. common maize: 4. wheat. It ſeems remarkable, that they ſhould conſider the crops which are preparatory to wheat as exhauſting, more than the wheat itſelf.

Padua.—Of wheat they ſow three ſtaji in middling land, two in fertile ſoils, and four in bad ones, per campo: as the ſtajo is equal to forty-one French pounds, and the campo about one-tenth leſs than an Engliſh acre, it makes three ſtaji equal to two and a half buſhels per acre, which is pretty exactly the quantity we uſe in England. The crop is two mozzi on the beſt land, and one and a half on a medium: each mozzo twelve ſtaji: this is about fifteen and a half buſhels the acre or under ſeven times the ſeed. Thus theſe wretched products purſue me through all Lombardy. Of maize they ſow three quarti, or three-fourths of a ſtajo, but if planted two: the produce, good five mozzi, middling three, bad one. Of lucern (the quantity very inconſiderable) and of clover they ſow twelve pounds *groſſo*. This pound is to the French one as 9150 is to 9219; this is between fourteen pounds and fifteen pounds per acre. Clover gives three carri, each one thouſand pounds at three cuts. Lucern four carri, at four or five cuts. Almoſt he whole country is lined into rows of pollards, as already deſcribed; yet they admit that every ſort of tree does very great damage to all arable crops; but to graſs the miſchief is not great.

To Venice.—The ſame level at this city that reigns about Padua, equally encloſed nd planted; much of it arable, and almoſt the whole cut into little ſcraps of fields, ith many gardens. Near the Adriatic, a dead level marſh, covered with marſh graſſes.

ECCLESIASTICAL STATE.—*Bologna.*—In a famous field near the city, remarkable or yielding great crops of hemp, wheat yields one hundred corbes for five of ſeed. n general, they ſow two and a half tornature of land, or one acre and a quarter, with corba of ſeed, or one hundred and fifty pounds to one hundred and ſixty pounds ſomething under the Engliſh pound); and in all the Bologneſe, on an average, the roduce is about five ſeeds, ſome only three; but on the beſt hemp lands twelve to xteen, on a medium; but twenty for one are ſometimes known.

TUSCANY.—*Florence.*—In the plains, the general produce is eight times the ſeed; he whole dutchy through, not more than five or ſix: in the depoſits of rivers, or ſpots emarkably rich, twelve, fifteen, and even twenty. All theſe are wheat. Beans four nd a half and five. On one ſtioro of land they ſow three-fourths of a ſtajo of wheat, hich weighs fifty-two pounds to fifty-five pounds of twelve ounces (this pound is equal o three quarters of a pound Engliſh). On the hills they ſow one-fourth more. Supoſing the ſtiora * to be, according to De la Lande, ſeven thouſand and fifty-ſix rench feet, about five and a half make an Engliſh acre; three-fourths of a ſtajo thereore per ſtiora equals one hundred and ſixty-five pounds per acre, or very near three uſhels.

But I found at Martelli, near Florence, that they ſowed but one third of a ſtajo per iora, which would not be more than two buſhels per acre. Beans would be much ore cultivated, but for the pernicious plant the *cuſcuta*—a paraſite that feeds on and eſtroys the crop, ſo that even the ſeed again is not reaped; in the old botany called *robanchis ramoſa*, and in Tuſcany *ſucca mala*, and *ſiamini*. Of ſaggini they ſow one and

* There are three accounts before me of the contents of a Tuſcan ſtiora. Monſ. De la Lande, tom. ii. . 31 . ſays, "le ſtiora = 196 toiſes quarrés en ſuperficie;" theſe are French toiſes, each ſix feet: this akes about 5¼ ſtiori to an Engliſh acre; that is to ſay, 7056 French ſquare feet, of which 38,300 are an cre. In *La Squadra mobile l'Arithmetica e l'Agricoltura, del S. Sangiovanni*, 4to. Vicenza, 1759, p. 11. and 3 . is the meaſure of the ſoldo of Florence, which equals 1⅛ inch Engliſh; the braccio is 20 ſoldi, or 22½ ches Engliſh, (by another account 23½); 6 braccia make a canna: and 8 canne long, by 6 broad, make a iora. Hence there are 6075 Engliſh feet in the ſtiora; conſequently there are ſomething above 7 ſtiori in n acre. Monſ. Pauſton, in his *Metrologie*, p. 7 4, compares it to the arpent of France of 48,400 French eet, and makes it to that arpent as 0.11461 to 1.0 00; by this account it will be about 27,8co French eet, of which feet 38,300 are an acre, or above 1⅓ ſtiora. In the *Giornale Fiorentino di Agricoltura*, 1786, . 253, "L'acre al noſto ſtioro ſtà come 8,992 a 10,592;" by this ratio, an acre is about 1¾ ſtiora. All heſe accounts differ therefore greatly. To compare other circumſtances.—At Martelli, they ſow onehird of a ſtajo of wheat ſeed on a ſtiora; and at Villamagna they ſow 3¼ ſtiori with 1 ſtajo, which quanities nearly agree. By De la Lande's account, this will be per acre Engliſh 73lb. which appears to be a maller quantity than any where uſed. By Sangiovanni, it will be about 94lb. ſtill under the common quanities. By Pauſton, it will be about 17lb.; a portion not to be named as the ſeed of an acre. And by the Florentine author, 23lb. which is almoſt equally abſurd. Seed wheat will agree with none of the meaures; ſuppoſe they ſow 2½ buſhels per acre, then there are 15 ſtiori in an acre. If 2 buſhels then, there are 2 ſtiori. All is confuſion.

At Villamagna, they ſow 24 ſtaji of beans on 28 ſtiori of land; this is about 3 buſhels Engliſh per 5¼ ſtiori, hich agrees very well with an acre being ⅓: they ſow alſo 6 ſtaji of oats on 10 ſtiori, this would be 2 uſhels on 5: they ſow oats therefore rather thinner, proportionably to the Engliſh practice, than beans.

Upon my getting a friend to write to Tuſcany for information, I received ſuch as proved of no uſe; imply this table,—1 *quadrato*, 10 *tavola*; 1 *tavola*, 10 *pertiche*; 1 *pertica*, 10 *deche*; 1 *deca*, 10 *braccia quadra*. This makes the *quadrato* under 40,000 feet Engliſh. But what is the *ſtiora*? Such are the ndleſs difficulties in every thing concerning meaſures.

Where authorities, apparently good, differ ſo greatly, the reader will of courſe receive all eſtimations with nany doubts.

a half

a half ſtajo of ſeed, and the produce fifty to ſixty. Of formentone (maize) they ſow half a ſtajo, and reap twenty five.

On the plains in Tuſcany, the chief product is wheat, the ſecond wine, and the third oil; but on the ſouthern ſide of the hills, olives on ſpots bad for them, and wine. Silk no where enough to be a chief object.

MODENA.—The country from Modena to Reggio conſtantly improves in its features, and muſt be reckoned among the beſt cultivated in Lombardy; the fields are thrown into arched lands, like Flanders about twenty-five yards broad, and ſmall ridges on thoſe: a row of trees is planted on the crowns of ſome, and along the furrows of others: in ſome there are neat great trenches; and as the fences are equally well made, and the meadows with a good aſpect, the country carries the general features of being well cultivated. The appearance of theſe broad ridges, in two of the beſt cultivated countries in Europe, Lombardy and Flanders, juſtly gives a high idea of the practice.

PARMA.—From Reggio to Parma, there are many lands, three or four yards broad, now (November) deep ploughed, and the furrows cleaned out by ſpades, laid up in this manner, for planting beans in the ſpring; excellent management. There are alſo a good many autumn ſown ones, three or four inches high: produce in general, about Vicomero, wheat four or five times the ſeed, and beans five or ſix. To Firenzula this practice takes place yet more, and is better done. The merit of their huſbandry appears to be greater about Parma than at Piacenza; there is a viſible decline as you advance.

SAVOY.—At Lanceſbourg, they ſow only rye, which they harveſt in July, the produce about ſix for one.

If the intelligence concerning the produce of wheat be reviewed, it will be found, on an average, varying from five to ſeven and a half times the ſeed; generally between five and ſix. Suppoſe the latter number, and we ſhall, with reaſon, be amazed at the miſerable products of this rich plain, in every thing except graſs and ſilk. The average ſoil of England cannot be compared with the average ſoil of Lombardy, yet our mean produce is eleven times the ſeed, perhaps twelve. Every one muſt be curious to know the cauſe of ſuch wretched crops: I attribute them to various circumſtances—but the predominant cauſe muſt be ſought for in the ſmall farms occupied either by little peaſant proprietors, or, what is more general, by metayers. This abominable ſyſtem of letting land is the origin of moſt of the evils found in agriculture, wherever the method prevails. Such poor farmers, who, in every part of Italy where I have been, are ſo miſerable, that they are forced to borrow of the landlord even the bread they eat before the harveſt comes round, are utterly unable to perform any operation of their culture with the vigour of a ſubſtantial tenantry; this evil pervades every thing in a farm; it diffuſes itſelf, imperceptibly to a common eye, into circumſtances where none would ſeek it. There are but few diſtricts where lands are let *to the occupying tenant* at a money rent; but wherever it is found, *there* crops are greater; a clear proof of the imbecillity of the metaying ſyſtem. Yet there are politicians, if they deſerve the name, every where to be found who are violent againſt changing theſe metayers for farmers; an apparent depopulation is ſaid to take place; and the ſame ſtupid arguments are heard, that we have been peſtered with in England, againſt the union of farms. Men reaſon againſt that improvement of their lands, which is the natural progreſs of wealth and proſperity; and are ſo groſsly abſurd as to think, that doubling the produce of a country will deprive it of its people.

SECT. III.

SECT. III.—*Of the Culture of Plants.*

Gallega Officinalis.—Commonly ſpontaneous in the fields, between Milan and Pavia, and wherever cattle have admiſſion all cloſely eaten.

Paliurus.—I know no plant that makes a better hedge than this in the north of Lombardy. Sig. Pilati, near Breſcia, has one of ſix years growth, as good as an excellent white thorn one in England would be in ten.

Trigonella Fœnum Græcum.—Cultivated in the Bologneſe in preference to clover; ſoil with it; and ſow wheat on the land.

Sainfoin.—In Tuſcany, the *coline de Piſani* are much under this plant, which is called *lupinello*; particularly about Caſtel Fiorentino, where it was introduced about twenty years ago by Sig. Neri; one of the good deeds which deſerve a nation's thanks, better than a victory, or the taking of half a dozen towns. A thouſand ſacks of the ſeed were ſent thence to Naples and Sicily. Will thoſe kingdoms awaken at laſt? Sig. Paoletti, at Villamagna, has a piece of good ſainfoin on a ſteep ſlope; but I found one-third of it burnet.

Larch.—In the Milaneſe, at Mozzata, the Count de Caſtiglioni having two hundred pertiche of waſte heath, and a community two hundred more adjoining, he took a leaſe of it for ever; and ploughing the whole, ſowed acorns, planting alder, larch, and other trees, which do well; but the ſown oak, in eight years, exceeded every thing, and are beautiful trees: the ſoil a poor gravel. We have in England ſo many prejudices, that a man who does not travel is apt to think that every thing Engliſh is better than the ſame things in other countries; and, among other follies, that for oak England is ſuperior to all the world: but timber wants ſun as much as wheat; and I have no where in England ſeen ſuch a growth of timber, as in many places abroad. Larch abounds greatly in the mountains, and is reckoned an admirable wood for water-works; all poſts are of larch. I have read in ſome writer, that there is a law in many parts of Lombardy which allows a land-proprietor, whoſe eſtate is entailed, to plant, on the birth of a daughter, a certain number of Lombardy poplars, which are her portion on coming of age, or being married, in ſpite of any entail. I enquired, both in Piedmont and here, into the truth of this, and was aſſured there is no ſuch law; nor did they ever hear of the cuſtom, even when eſtates have not been entailed.

In the arſenal of Venice is ſome quantity of larch, kept under cover, and valued greatly for all works expoſed to water. They are not very large, but coſt twenty-two ducats each. The maſts are very fine pine-trees, from the upper Treviſano; I meaſured one thirty-eight yards long, and two feet diameter at the butt, and one foot at the other end.

Lucerne.—I mention this plant, for an opportunity of obſerving how very rarely it is cultivated in Italy: I ſaw a little near Padua; and there is an inconſiderable quantity in the Parmeſan, where it is cut five or ſix times; they find that cows give more milk on it than on any other graſs.

Raves.—I was ſurpriſed to find turnips, or rather the French raves (for I fear they are not the genuine turnip) cultivated in Tuſcany. I was aſſured that in the Valdichiana there are many, ſown immediately after wheat, but never hoed, yet come generally from two pounds to five pounds; ſome to thirty pounds (twenty pounds Engliſh), and that they are applied to the feeding and fattening of oxen, which ſell at 140 *ſcudi* the pair (39l. 13s. 4d. Engliſh); nothing beſide is given, except a little hay.

Cyprus Tree.—At Soma, near the Lago Maggiore, there is a famous cyprus tree, which Corio, in his *Storia di Milano*, ſays, was the place where the people aſſembled in congreſs

congreſs in the thirteenth century; it was then the moſt celebrated tree for ſize and age in the Milaneſe, and muſt therefore be immenſely old at preſent. It is now in good health, except a few branches that have ſuffered a little towards the top; it is nine *braccia* in circumference.

Culture of Silk.

Nice.—Eight *roups* of cocoons, or eighty-four pounds, make twenty-four pounds of ſilk (eleven ounces and a half), which ſells at 10 livres 5*ſ.* the pound; a *roup* of leaves ſells at 20*ſ.* and two hundred and fifty *roup* are neceſſary for eight ounces of grain (eggs).

Coni.—The whole country, after aſcending the Alps, is planted with mulberries around every field, and if large, in lines acroſs. I remarked great numbers from ten to fifteen years old.

To Chentale, one ounce of grain requires three hundred and ſixty *roup* of leaves; each *roup* twenty-five pounds, and yields four or five *roups* of *bozzoli* or *cacata* (cocoons), and one *roup* of cockoons makes three pounds of ſilk. The price of organzine 20 livres to 24 livres per pound; the offal pays the ſpinning. Gathering the leaves coſts 2*ſ.* to 3*ſ.* the *roup*.

Chentale.—The ſeed of the mulberry is ſown in nurſeries, and the trees commonly planted out at four years old. The firſt, ſecond, and third year, they are pruned, for giving the branches the right form; the fourth, they begin to gather leaves. Some which were ſhewn me by the Count de Bonaventa, of eighteen years old, give ſix, ſeven, and to eight *rubbii* of leaves each. One old tree, a very extraordinary one, has given fifty-three *roups*. A large tree, of fifty or ſixty years, commonly yields twenty-five *rubbii*. They never dig around them, nor waſh the ſtems, as in Dauphiné; but they have a practice, not of equal merit, which is to twiſt ſtraw-bands around the ſtems, to defend them againſt the ſun. For one ounce of grain ſixty-five to eighty *rubbii* of leaves are neceſſary, which give two and a half *rubbii* of cocoons, and ſometimes ſo far as four. One *rubbio* of cocoons yields twenty to twenty-one ounces of ſilk organzine, of the price of 18 livres per pound. For gathering the leaves, from 1*ſ.* 8 *den.* to 2*ſ.* the *rubbio* is given. The offal (*moreſca and chocata*) pays the winding and ſpinning. They never hatch the worms by artificial heat, uſing that of the ſun, or of the human body. The common method of carrying on the buſineſs is to provide, as in France, grain and mulberries, and to receive half the cocoons. The cultivation is ſo profitable, that there are many lands to which mulberries add a value of 200 livres, or 300 livres, more than they would ſell for if they contained none; and it is farther thought, that they are little injurious to corn, the ſhade not being ſo prejudicial as that of the walnut, and of ſome other trees. The common eſtimation of profit is, that trees of all ages yield from the time of beginning to bear, from 30*ſ.* to 4 livres each, nett to the landlord for his half produce.

Turin.—One ounce of grain gives two to four *rubbii* of cocoons, and demands one hundred and twenty *rubbii* of leaves; one *rubbio* of cocoons will give twenty-two ounces of commonly well ſpun ſilk. The price of grain 12 livres the ounce when very ſcarce, but in common 30*ſ.*; that of leaves 7 or 8*ſ.* per *rubbio*. Cocoons, 21 livres per *rubbio*. When I aſked the price of the ſilk, the anſwer was, Oh! for that, it is the price the Engliſh chooſe to pay for it. The common price of organzine, 16 to 20 livres, firſt quality; raw, 12 livres. For gathering the leaves, 2*ſ.* per *rubbio* is given. Of the different ſorts of mulberry, the wild is the beſt, in point of quality of ſilk. A tree of twenty years will give twenty-four

or

or twenty-five *rubbii* of leaves; ſome to thirty-five *rubbii*. The trees are grafted in the nurſery, and planted out at four years, at the beginning of April; price, 20*ſ.* to chooſe out of many; and in four years after begin to gather. When planted in watered meadows, the gathering damages the hay almoſt to the value of the leaves, yet many are ſo planted; and many peaſants think they loſe in corn by the ſhade of the trees, as much as they get by them. From the 22d to the 26th of April is the ſeaſon for hatching; never by fire; nor have they any method of retarding the hatching, in caſe of a want of leaves. Endive, lettuce, and elm leaves, have been often tried as a ſuccedaneum, but always killed the worms; ſuch things muſt never be depended on. The peaſants generally ſell the cocoons, not one in a hundred ſpinning. A chamber of twenty feet by twelve feet is neceſſary for three ounces of grain; and ſix tables, one *trebucco* long and two-thirds wide.

Novara.—Paſſed this place towards Milan, which is a great tract of mulberries for ſeveral miles.

MILANESE.—*Buffalora to Manienta.*—Many mulberry hedges, but they are bad and ragged; ſome new planted in the quincunx poſition. For ſeveral miles the country is all planted in rows of vines, at twelve, ſixteen, and twenty feet, and fruit trees among them, for their ſupport; among which are many mulberries, and the vines running up them. This muſt be a moſt profitable huſbandry indeed, to have ſilk and wine not only from the ſame ground, but in a manner from the ſame tree. Between the rows the ground is cultivated; millet, maiz (cut), *holcus ſorgum*, the great millet, lupines, with dung amongſt them, to be ploughed in for wheat, with young maiz, ſown thick, as if for fodder.

Citricho.—A beautiful mulberry hedge, and in good order; ſix to eight inches from plant to plant, and cropt at ſixteen or eighteen from the ground. It is clear therefore that the plant will do, with care, for a good hedge. Towards Milan, mulberries decline, oak and other pollards being found in their ſtead.

Mozzata.—The culture of mulberries and making ſilk, being here much attended to, were principal objects in my inquiries. The fruit is well waſhed, the end of June, to make the ſeed ſink; it is then ſown in rows, in a bed of earth well manured, and finely laboured, in the rich nurſeries near Milan; covered very lightly, and the ſurface lightly flattened; ſtraw is ſpread to defend it from the ſun, and much water given. When the young plants appear, they are weeded by hand. The ſecond year, they grow to two or three feet high, and hoed and thinned. The third year, they are cut to the ground above the buds that are to puſh, and tranſplanted from thoſe nurſeries, in the vicinity of the city, to others that are ſcattered all over the country, in ground well dug and manured, and at two feet ſquare; here they are kept clean by hoeing. The fifth year, in the ſpring, they are cut again to the ground; they then ſhoot very powerfully, and attention muſt be given, to keep but one good ſhoot, and the ground is dug or hoed deeper than common, and alſo dunged. The ſixth year, thoſe that are high enough are grafted, and the reſt the year following. Thoſe that took the ſixth year, ought to reſt in the nurſery three years, including the year of grafting, that is, the ſeventh and eighth year. They do not like to plant large trees, and have a proverb,

Se vuoi far torto al tuo vicino,
Pianta il moro gróſſo e il fico piccolino.

As to plant ſmall fig trees is as bad as large mulberries.

The holes are made in winter for receiving them where they are to remain; theſe are nine feet ſquare and two feet deep, and have at the bottom a bed of broom, bark

of trees, or other rubbiſh; then the beſt earth that can be had, and on that dung, one load of ſixteen feet to four trees; this is covered with more good earth, and this levels the hole with the reſt of the field; then prune the roots and plant, ſetting a pole by the young tree to the north, and a ſpur poſt on the other ſide, to guard it from the plough. Twine no ſtraw the firſt year, becauſe of the inſect *forficula auricularia*, L.; but in November bind ſtraw around them againſt the cold, or, as ſtraw is dear, the *poa rubra*, which abounds. Never, or very rarely, water. Much attention to remove all buds not tending in the right direction.

The fourth ſpring after planting, their heads are pollarded in March, leaving the ſhoots nine inches long of new wood, and ſeeking to give them the hollow form of a cup, and that the new buds may afterwards divide into two or three branches, but not more. The next year they begin to pluck the leaves. They are attentive in pruning, which is done every ſecond year, to preſerve as much as they can the cup form, as the leaves are gathered the more eaſily. Thus it is about fourteen years from the ſeed before the return begins.

After gathering the leaves, a man examines and cuts away all wounded ſhoots; and if hail damage them, they are cut, let it be at what time of the year it may. Old trees are pruned after gathering, but young ones in March. In autumn, the leaves are never taken for cattle before the 11th of November, as the trees after that time do not ſuffer. The third year after planting young trees, they ſow about a hat-full of lupines around the ſtem, and when about ten inches high, dig them in for manure. The opinion here is, that the mulberry does very little harm to rye or wheat, except that when cut the falling of branches and trampling are ſomewhat injurious. Maiz, millet, and panic are much more hurt. A tree, five years after tranſplanting, gives ten pounds of leaves, each twenty-eight ounces. At ten years, eighteen pounds. At fifteen years, twenty-five pounds. At twenty years, thirty pounds. At thirty years, fifty pounds. At fifty to ſeventy years, ſeventy pounds. There are trees that give eighty pounds, and even one hundred pounds. The price of leaves is commonly 4 livres per one hundred pounds (twenty-eight ounces). For one ounce of grain five hundred pounds of leaves are neceſſary, and yield ſeventeen pounds of cocoons; but among the riſings in the mountain of Brianza, twenty-five pounds. To make a pound of ſilk, of twelve ounces, five pounds or ſix pounds of cocoons, of twenty-eight ounces, are required. Price of cocoons, in the low watered country, 2 livres per pound (twenty-eight ounces). At Mozzata, 2½ livres. At Brianza, 3 livres. The grain is hatched in a chamber, heated by a chimney, and not a ſtove, to ſeventeen degrees of Reaumur (ſeventy and a half Far.); but before being placed in this chamber, they are kept eight days under a bed, with a coverlet upon them, in boxes covered with paper pierced; and when hatched lay the young leaflets of the mulberries on the paper, to entice them out. The method of conducting the buſineſs here is the ſame as in France, the landlord furniſhes half the grain, and the peaſants half, and they divide the cocoons. Price of grain, 2 livres the ounce. Mulberries, of all ages, are pollarded every ſecond year; a miſchievous cuſtom, which makes the trees decay, and leſſens their produce; it is never done in Dauphiné, where the culture is ſo well underſtood.

Milan.—Sig. Felice Soave made ſome intereſting trials on ſilk worms.

At Lambrate, near Milan, two ounces of ſeed in rooms kept to the heat of twenty-three and twenty-four degrees of Reaumur, hatched well, and kept healthy: the 28th of April the ſeed was placed in the rooms, and hatched in the third, fourth, and fifth day: the 21ſt of May the firſt cocoon ſeen, and at the end of the month all were at work. The product gathered the 3d of June; the product ninety-two and a half pounds of co-

 coons

coons (twenty-eight ounces); eighty-four of them having been ſpun from four and five cocoons, gave twenty pounds and one-third (twelve ounces) of ſilk, ſtronger and more ſhining than common: the conſumption of leaves, fourteen hundred and twenty pounds, of twenty-eight ounces. Wood uſed for fire, two thouſand eight hundred pounds; but the two rooms would have ſerved for four ounces of ſeed. In the common method, without ſtoves, the conſumption of leaves is five hundred pounds for an ounce of ſeed, and the medium product is not above fifteen pounds of cocoons; and by this new method, the conſumption of leaves has been ſeven hundred and ten pounds each ounce, and the produce forty-ſix and a quarter pounds of cocoons. Sixteen or ſeventeen cocoons weigh an ounce in the common method, but in this only thirteen or fourteen. The ſilk cannot commonly be ſpun from five or ſix cocoons; theſe were ſpun eaſily from four or five, and might have been done from three or four. To gain a pound of ſilk, in common, five pounds of cocoons are neceſſary; but here the ſame quantity has been gained from four pounds.

Lodi to Codogno.—In this dead level and watered diſtrict there are very few mulberries; none except near the villages; many of them, not all, appear unhealthy, perhaps by reaſon of their not exerting the ſame attention as in Dauphiné, where there are, in irrigated meadows, mounds made to keep the water from theſe trees.

Codogno to Crema.— Mulberry trees here have large heads, as in Dauphiné, inſtead of being pollarded inceſſantly, as to the north of Milan.

There is an idea in the Milaneſe, that ſilk was introduced by Ludovico il Moro. Franceſco Muralto reports, "*Prædia inculta infinita duobus fluminibus ad novalia (Ludovicus), reduxit infinitas plantas Moronum ad conficiendas ſetas, ſeu ſericas plantari fecerat et illius artis in ducatu, primus fuit auctor* *." It is ſaid to have been introduced into Europe by ſome Baſilian monks from Sirinda, a city of Indoſtan, to Conſtantinople, under the Emperor Juſtinian, in the year 550, by one account †; and by another, in 525 ‡. In 1315, the manufactory of ſilk was brought in Florence to great perfection, by the refugees of Lucca §; but during the fifteenth century no ſilk was made in Tuſcany; for all uſed in that period was foreign, ſilk worms being then unknown ‖. In 1474, they had eighty-four ſhops that wrought gold and ſilver brocaded ſilks, which were exported to Lyons, Geneva, Spain, England, Germany, Turkey, Barbary, Aſia, &c. ¶ Roger I., King of Sicily, about the year 1146 **, having conquered ſome Grecian cities, brought the ſilk-weavers from thence into Palermo; and the manufacture was ſoon imitated by the people of Lucca, who took a bale of ſilk for their arms, with the inſcription—*Dei munus diligenter curandum pro vita multorum* ††. In 1525, the ſilk manufacture at Milan employed twenty-five thouſand people; and it ſeems to have augmented till 1558 ‡‡. In 1423, the republic of Florence took off the duty of *entrée* upon mulberry leaves, and prohibited the exportation; and ſome communities of Tuſcany have records concerning ſilk anterior to that period §§.

In almoſt all the diſtricts of the Milaneſe mulberry trees are met with, very old, with towering branches; among which are thoſe of Sforzeſca, planted under Ludovico il Moro |||, who lived at the end of the fifteenth century.

* *Atti Societa Patriotica*, vol. ii. p. 220. † *Saggio ſopra la Replicata Raccolta della Foglia del Gelſo*, 1775. p. 1. ‡ *Dizionario del Filugello*, 12mo. 1771, p. 43. § *Ragionamente ſopra Toſcana* p. 49. ‖ *Decima*, tom. ii. ſez. 5. cap. 4. ¶ *Benedetto Dei.* ** *Giannone Storia Civ.* Y. ii. lib. 11. cap. 7. p. 219. *Giulini*, tom. v. p. 461. †† *Saggio*, &c. p. 56. ‡‡ *Opuſc. Scelte*, vol. vii. p. 12. *Bartolozzi.* §§ *Corſo di Agricoltura Pratica. Laſtri*, tom. i. p. 285. ||| *Elementi d'Agricoltura. Mitterpacher*, tom. ii. p. 513.

VENETIAN STATE.—*Vaprio to Bergamo.*—There are many mulberries, mixed with the cultivation of corn and vines, in this tract of country.

Bergamo.—Four ounces of ſeed are here given to each poor family, which yield four *peſi* of cocoons.

Breſcia.—One hundred *peſi* of leaves are neceſſary to one ounce of ſeed; and four *peſi* of *bozzoli*, or cocoons, are the produce of one ounce; and the *peſo* of cocoons gives twenty-eight to thirty ounces of ſilk. Cocoons ſell at 45 livres per *peſo*. Leaves at 1 livre; and ſilk at 22 livres to 24 livres per pound. The trees are lopped every three years; yet ſome are known that give twenty *peſi* of leaves. Small ones half a *peſo* and one *peſo*.

Verona.—One ounce of ſeed demands ſeventeen or eighteen *ſacchi* of leaves, each one hundred Veroneſe pounds (or ſeventy-four pounds Engliſh). Twelve ounces of ſeed are given to each family; and each ounce returns ſixty pounds of cocoons, at twelve ounces the pound; the price 24*ſ.* the pound. To each ounce of ſeed ſixteen to eighteen *ſacchi* of leaves, each one hundred pounds of twelve ounces are neceſſary. The ſixty pounds cocoons, at 24*ſ.* are 72 livres, or 36s.; which is the produce of eight trees, or 4s. 6d. a tree, the half of which is 2s. 3d. It muſt however be remarked, that theſe prices of cocoons vary ſo much, that no rule can be drawn from them: this price of 24*ſ.* the pound is very low, and muſt ariſe from ſome local circumſtance. One ounce of ſilk to one pound of cocoons. They are here, as in the preceding diſtricts, in the cuſtom of finding the trees and half the ſeed, and the peaſants the reſt; and they divide the cocoons. A tree of forty years old will give four *ſacchi*; and if a plantation conſiſt of one thouſand trees, they will, one with another, give two *ſacchi*. They make ſilk in the Veroneſe to the amount of a million of pounds of twelve ounces. There are, near the city, ſome trees in a rich arable field ſeventy years old, that yield from four to ſix ſacks of leaves each; this is about 10s. a tree at the loweſt price of cocoons.

To Vicenza.—There are many rows of mulberries in the meadows, that are never dug around, and yet quite healthy, which proves that they might be ſcattered ſucceſsfully about graſs lands, if any proof were wanting of ſo undoubted a fact. In the arable lands, the ſoil all gravel, they are planted twelve ridges apart. Some of the trees are old, that ſpread ſeven or eight yards acroſs.

Vicenza.—The produce of ſilk amounts here to about 6 livres the campo, over a whole farm; this is about 3s. an acre. The ſacco of leaves weighs ſeventy-five pounds, and forty ſacchi are neceſſary for one ounce of ſeed; which gives one hundred pounds of cocoons, and ten pounds of ſilk. One hundred trees, of twenty years old, yield forty ſacchi; price 3 livres to 11 livres; commonly 3 livres. Price of cocoons 30*ſ.* to 50*ſ.* the pound.

I was glad here to meet with ſome intelligence concerning the new ſilk worm, ſaid to have come from Perſia, which they have had here eight years, but is in the hands of ſo few perſons, that I could get none of the ſeed; and I ſuſpect that it is loſt, for, on repeated inquiries, I was referred to other parts of Italy. While they had this worm, they had four crops of cocoons a year:—1. In the beginning of June. 2. The end of the ſame month. 3. The middle of Auguſt. 4. In October. This worm is eſſentially different from the common ones in the circumſtance of hatching: no art will hatch the eggs of the common ſort the firſt year, that is the year of the flies dropping them; they can be hatched the year following only; but of this new ſort, the eggs will hatch in fifteen days the ſame year, if they be in the proper heat. But it is to be obſerved, that they uſe this ſort of worm not really to command ſeveral crops in the ſame year, for mulberry trees will not bear it without deſtruction, but merely as a ſuccedaneum to the common

ſort

ſort of worms, if by froſts in the ſpring they be loſt for want of food; this new ſort is in reſerve to apply the leaves to profit once in the year. Theoretically the plan is good; but there muſt have been ſomething in practice againſt it, or we may conjecture that after many years the uſe of them would have been generally introduced.

This will not be an improper place to introduce ſome remarks on this ſubject, by an author much eſteemed, but quite unknown in England. It appears from the work of Count Carlo Bettoni, of Breſcia, that the diſcovery of the new ſilk worm aroſe from experiments made with a view of finding out a cure for the ſickneſs of mulberry-trees, called moria; this was ſuppoſed to ariſe from ſtripping the leaves in the ſpring annually; it was thought that if ſome means could be diſcovered of poſtponing the gathering much later in the year, it would greatly favour the vegetation and health of the trees; an effect that could only take place by means of a worm that would hatch much later than the common one. In 1765, a ſecond hatching of the eggs of the common worm is ſaid, by the ſame author, to have been made; part of which were fed with the ſecond growth of leaves, and part with the leaves of trees that had not been gathered in the ſpring. Thoſe fed with the old leaves gave a greater number of cocoons, and of a better quality than the others. Theſe experiments were repeated by many perſons; and it was found, that in the heats of July and Auguſt the worms would not do well; but in September much better, and that the trees did not ſuffer from having their leaves gathered in September. The ſame author ſays that the new worms (which he calls *foreſtieri*) will hatch three times a year, and that no art will prevent it; no cellars, no cold will keep them from it, though it may retard them ſome time, as he tried in an ice-houſe, by which means he kept them inert till Auguſt. But, on the contrary, the common ſort cannot in general be hatched a ſecond time the ſame year, even with any heat that can be given; yet he admits, that they were hatched by certain perſons in 1765. The new ones ſleep four times, like the common ones, but begin to ſpin their cocoons five or ſix days ſooner: they eat leſs in quantity, but give leſs ſilk; and as this defect is balanced by the advantage in food, they ought not, ſays the Count, to be proſcribed. Their cocoons are ſmall, but the conſiſtency is good and fine; and their ſilk is fine and ſofter than the common: he ſold it for 4 livres or 5 livres a pound more than common ſilk. There is, however, an evil attends them, which is the uncertainty of their hatching the ſecond and third time; ſometimes all the ſeed will hatch, but at others only a part; even only the ſeventh and tenth of the quantity: but the firſt hatching is regular, like that of the common worms. A circumſtance in the courſe of his trials deſerves noting, that he found the worms of both the old and new ſorts would drink water when offered to them, and that the cocoons were the larger for their having had the water.

They have had a ſort in Tuſcany that hatches twice a year; and the Count writing thither for information concerning them, found that their ſilk was coarſer than the common, and of leſs value; and he judges them to be a different kind from his own, which hatches three times. The Count concludes nothing determinate concerning them; but reſolves to continue his numerous experiments and obſervations. As there may be perſons who think, as I did at firſt, when I heard of this ſort of worm, that if any ſucceed in England it would probably be this; it is proper to obſerve that Count Bettoni had nothing in view but the diſeaſes of the mulberry trees, and does not ſeem to have had at all in contemplation the evils attending late froſts, depriving the worms of their uſual food; and if the common ſort may be retarded in hatching (which he ſhews) till Auguſt, equally with the new ſort, there does not ſeem to be any extraordinary advantage in this ſort, for a northerly climate, more than in the others. The Count's book * was printed at Venice in 1778.

* *rogetto per preſervare . . . . . lo Bettoni.* 8vo. Various paſſages.

Sig. Pieropan has made an obſervation, which deſerves noting; mulberries, and likewiſe other trees, are generally found to ſucceed much better when grafted a little before ſun-ſet than at any other time: the reaſon he attributes to the heat of the earth after ſun-ſet; he kept a journal ſome years of the comparative heat of the atmoſphere and the earth, at the depths of four, twelve, and twenty-four inches; and has found, that immediately after the ſetting of the ſun the mercury in thoſe thermometers under ground had always riſen ſome degrees gradually till the riſing of the ſun, when it as regularly falls.

The following is the Account of the Profit and Loſs of Six Ounces of Seed, for Three Years, at Vicenza, by Sig. Carlo Modena.

1778.

	liv.	ſ.	den.
Expences.			
Semenza—ſeed, ſix ounces,	36	0	0
Foglia—leaves, 26,475 lb.	1545	4	0
Speſa—gathering leaves and attendance,	868	16	0
Filare—ſpinning 992 lb. cocoons, which give 159 lb. 5 oz. ſilk,	557	18	0
	3007	18	0
Produce.			
159 lb. 5 oz. of ſilk,	4144	15	0
Reſuſe ditto, 41 lb.	102	10	0
Seed, 55 oz.	330	0	0
	4577	5	0
Expence,	3007	18	0
Profit,	1569	7	0

1779.

Expences.			
Seed, ſix ounces, half given to the peaſants, three ounces,	18	0	0
Leaves, 15,607 lb.	753	9	0
Spinning—the produce 446 lb. cocoons, half of which, 223 lb. to the proprietor, 29 lb. of ſilk,	101	10	0
	872	19	0
Produce.			
29 lb. of ſilk, 754 0 0			
Reſuſe ditto, 21 2 0			
	775	2	0
Loſs,	97	17	0

1780.

1780.—Upon his own account.

Expences.

	liv.	ſ.	den.
Seed, 6 oz.	36	0	0
Leaves, 370 ſacks,	97	13	0
Gathering and attendance,	1303	12	0
Spinning 910 lb. of cocoons,	265	0	0
Reducing 118 lb. 6 oz. of ſilk into organzine,	451	10	0
	3013	15	0

Produce.

Refuſe ſilk,	116	4	0
118 lb. 6 oz. of organzine,	4325	5	0
Leaves ſold,	28	0	0
Silk kept for own uſe, 2 lb. 3 oz.	49	10	0
	4518	19	0
Expences,	3013	15	0
Profit,	1505	4	0

This year the profit would have been much greater; but through the negligence of the women in the night, not attending to the degrees of heat (from 25 to 27 degrees Reaumur), many were ſuffocated *.

To Padua.—One ounce of ſeed gives ſixty pounds of *galetta* (cocoons), and eight pounds to ten pounds of *galetta* one pound of ſilk: the ounce of ſeed requires ſixteen ſacks of leaves, of four *peſi*, each twenty-five pounds; and twelve ſmall trees yield one ſack, but one great tree has been known to yield ſix ſacks. Price of gathering, 20*ſ.* the ſack. Expence of making ſixty pounds of ſilk, 250 livres. Spinning, 30*ſ.* the pound. Cocoons ſell at 30*ſ.* to 36*ſ.* Silk this year, 25 livres the pound, *ſotile.*

Padua.—One ounce of ſeed gives in common thirty pounds of cocoons, and eight pounds of cocoons one pound of ſilk: twenty ſacks, of eighty pounds of leaves, are neceſſary to feed the worms of an ounce of ſeed. Price of gathering, 20*ſ.* the ſack. The greateſt trees give ten ſacks of leaves each; a tree of twenty years four or five ſacks. It is not the general cuſtom to divide this buſineſs with the peaſants. The common ſort of ſilk worm is hatched about the 25th of April; the others the middle of June; but ſilk demands a more expenſive operation in the latter ſeaſon.

Venice.—There are three ſorts of ſilk worms:—1. The common one, which caſts its epiderm, or ſleep as it is called, four times. 2. A ſort known at Verona, that caſts only three times; the cocoons ſmaller than thoſe of the other ſort. 3. The new ſort mentioned by Count Carlo Bettoni, the ſeed of which hatch two or three times a year; but the others only once. The ſeed of the two firſt ſorts cannot be hatched the ſame year

* *Opuſcoli Scelti*, tom. iii. p. 33.

it

it is dropped; but that of the third will hatch of itſelf, if it be not carefully kept in a cool place.

Bologna.—One hundred pounds of cocoons are made from one ounce of ſeed, and yield ſeven pounds and a half to eight pounds and a half of ſilk, of twelve ounces. Price of cocoons, twenty to twenty-five *baiocca*. Silk, thirty-four *pauls*, at 6d. the pound.

TUSCANY.—*Florence.*—Making inquiries here concerning the new ſort of ſilk worm, I found that they were not, as I had been before told, a new diſcovery in Italy, but known long ago; and, what is remarkable, is prohibited by law, in order to preſerve the mulberry trees from being ſtripped more than once. The ſilk made from them is not more than half as good as the common, and very inferior in quantity alſo. They aſſert here, that by means of heat they can hatch the eggs of the common ſort when they pleaſe, but not for any uſe, as they die directly; which is not the caſe with the new ſpecies, or that as it is called *di trè volte*.

Their contrivance for winding ſilk is very convenient, and well adapted to ſave labour; one man turns for a whole row of coppers, the fires for which are without the wall; and the cloſets with ſmall boilers of water, for killing the animal in its cocoon by ſteam, are equally well adapted.

At Martelli, near Florence, on a farm of one hundred and ninety *ſtiori* (thirty-four acres) there are forty or fifty mulberries, enough for one ounce of grain, which gives fifty pounds or ſixty pounds of cocoons, and ſix pounds or ſeven pounds of ſilk. Price of cocoons this year, 2 *pauls* the pound; laſt year 2½; and in 1787 it was 3 *pauls*. In the culture of the trees they do not practice ſuch attentions as the French in Dauphiné; they never dig about them, except when young; never waſh the ſtems; they prune the trees when neceſſary, but not by any rule of years. The beſt ſort is the wild mulberry, but it yields the leaſt quantity; next, the white fruit.

In 1782, Sig. Don. Gio. Agemi di Giun, prelate of the Greek Catholic church, on Mount Libanus, exhibited to the academicians Georgofili of Florence, the 4th of December, ſome ſilk worms, in number thirty-eight, part of which had already made their cocoons, and part ready to make them, as accuſtomed to do in his own country, with the leaves of the wild mulberry. The ſeed was hatched in October: the worms fed with leaves, procured from warm gardens; cocoons were made in November; mallow leaves were uſed alſo *.

MODENA.—The export of ſilk from the city forty-ſix thouſand pounds, at 38 livres (4d. each); from the whole territory, ſixty thouſand *zecchini*.

PIEDMONT.—*Paveſe.*—Immediately on entering the dominions of the King of Sardinia, within two miles of St. Giovanne, mulberries are found regularly every where, and continue to Turin. Seven-eighths of them are about twenty or twenty-five years old; ſome however are amongſt the largeſt I have ſeen.

Lombardy Poplars.

They are very ſcarce throughout Lombardy; there is a ſcattering between Modena and Reggio; and Count Tocoli, five or ſix miles from Parma, planted ſeveral thouſands along a canal, on the birth of his daughter, for her portion, but there is not in any part of Lombardy, any law which in ſuch caſes ſecures the groperty of the trees thus planted, to the child they are intended for; it is merely private confidence.

* *Corſo*, vol. iii p. 123.

Clover.

PIEDMONT.—*Chentale.*—Such is the power of climate united with the advantages of irrigation, that clover is here mown for hay once after harveſting the corn it grew with; the hay is not of the beſt quality, but uſeful.

MILANESE.—*Milan to Pavia.*—On the rich dairy farms, the cows are fed much on clover. The red ſort is ſown, which wearing out, white clover comes ſo regularly, that the country people think the one ſort degenerates into the other.

Vicenza.—They ſow twelve pounds of ſeed per *campo* with wheat; it is cut twice the firſt year, yielding one *carro* each cut; the ſecond year it is mown thrice: per 44 livres the *carro*, which is one hundred *peſi*, of twenty-five pounds.

Padua.—Sow twelve pounds *groſſo* per *campo* (fourteen pounds or fifteen pounds per Engliſh acre) it gives three *carri*, each one thouſand pounds, at three cuts (one ton and a half the acre Engliſh;) but they have crops that go much beyond this.

Figs.

PIEDMONT.—*Nice to Coni.*—On this range of the Alps, there are, in favourable ſituations, a great quantity of fig trees; and the extreme cheapneſs of the fruit muſt be of no trivial importance in ſupporting the people, not only while ripe but dried.

Hemp and Flax.

PIEDMONT.—*Chentale.*—A *giornata* (to an acre as 7440 to 7929) produces two hundred pounds for the proprietor, and as much for the farmer; and ſome crops riſe to ſix hundred and fifty pounds. They gather the female hemp from the 25th of July to the 4th of Auguſt: the male the beginning of September. Of ſome pieces I was informed that a produce not uncommon was thirty *rubbii* of female, and ſeventeen of male, worth 4½ livres to 5 livres the *rubbio*, both of the ſame price; and alſo twenty-five to thirty *mine* of ſeed, if well cultivated; but if not, twelve to fifteen. The *mine* thirty-five pounds, and the price 4½ livres to 5 livres the *mine*. The common calculation is, that a *giornata* is worth 150 livres to 200 livres, which may be called 10l. per Engliſh acre. Their contrivance for ſteeping is very ſimple and effectual: there are many ſquare and oblong pits with poſts in them, with open mortiſes for fixing poles to keep down the hemp, which is vaſtly preferable to our ſods and ſtones.

Turin.—They ſow three *mine* (forty-five pounds of wheat) and get thirty *rubbii*, at 4 livres 10*ſ.* to 4 livres the *rubbio* groſs; but ready for ſpinning 12 livres 10*ſ.* the fineſt; the ſecond quality is 7 livres 10*ſ.*; and the third 5 livres; beſides three *mine* of ſeed, at 2 livres each. This product is above 8l. the Engliſh acre.

MILANESE.—*Mozzata.*—Winter flax is here eſteemed the properer for land that is not watered; they ſow it in the middle of September; they have had it in this country two years only, and call it *lino ravagno*. It gives a coarſer thread than ſpring flax, but a greater quantity, and much more ſeed. The price of the oil 22*ſ.* the pound, of twenty eight ounces; of the flax ready for ſpinning, 25*ſ.* or 26*ſ.*; of the thread, 4 livres and 4½ livres. A *quartaro* of ſeed is neceſſary for a *pertica*, for which it returns eight times the quantity of ſeed, and twenty pounds of flax ready for ſpinning, at 25*ſ.* the pound.

Codogno —When they break up their clover lands they ſow flax on one ploughing, which is worth rent 20 livres and crop 40 livres per *pertica*, being twenty-four pounds of twenty-eight ounces and ſeed three times more than ſown. Much winter flax now green.

VENETIAN STATE.—*Bergamo.*—Winter flax green in October.

ECCLESIASTICAL STATE.—*Bologna.*—The territory of Bologna produces from twelve to fourteen million pounds of hemp. They manure for it highly with dung, feathers, the horns of animals, and ſilk-worms' refuſe. The beſt hemp-land is always dug; the difference between digging and ploughing is found to be very great. If ploughed, three earths are given; when the ſpade is uſed, the land is firſt ploughed and then dug. For this crop five or ſix yards are left unſown under the rows of trees. The ſoil agrees ſo well with this plant that the crop riſes ten feet high; they gather it all at once, leaving only a few ſtands for ſeed. It is watered in ſtagnant pools. A good product is from one hundred pounds to two hundred pounds of twelve ounces per *tornatura*, or half an acre. The price of the beſt is from 20 livres to 27 livres the hundred pounds. At preſent 25 livres (the Engliſh pound one fifth larger than the Bolognese, and the livre of the Pope's dominions is ten to the *zecchin*, of 9s. 6d.) ready for combing. When ready for ſpinning, the price of the beſt is 12*ſ.* the pound; and they pay for ſpinning ſuch 6*ſ.* to 15*ſ.* the pound. Near the city I viewed a field famous for yielding hemp: no trees are planted acroſs it, which is ſo common in the country in general; a ſure proof of the pernicious tendency of that ſyſtem; ſince in very valuable fields theſe people themſelves reject the method. Little or no hemp on the hills near Bologna, but ſome autumnal flax for family uſe.

Maize.

PIEDMONT.—*Chentale.*—Maize produces here twenty-five to thirty *mine*, which holds forty-ſeven pounds of wheat, and the price 2 livres each. It is ſown on three feet ridges.

Savigliano.—Maize, in a good year, will yield three hundred fold, but in a dry one ſometimes ſcarcely any thing.

Turin.—Made every where the fallow, which prepares for wheat.

Chivaſco to Verceil.—A great deal of maize through all this country, and all foul with graſs and weeds, even to the height of two or three feet.

MILANESE.—*Milan.*—They ſow much maize, of the ſort called *quarantino*, from its ripening in forty days (which however it does not). They ſow it the middle of July, after wheat, which they cut the firſt week of that month. If the common maize were ſown at this time, they aſſert that it would yield no ripe ſeed: this is a very curious circumſtance. The culture has been often recommended to England; if ever any thing were done, it muſt aſſuredly be with this ſort; but even with this I ſhould put no faith in the power of an Engliſh climate.

Mozzata.—They cultivate three ſorts:—1. *Formentone maggengo*, ſown the beginning of May, and reaped in October. 2. *Formentone agoſtano o formentone de ravettone*, becauſe ſown after taking off the rave or coleſeed for oil, the end of May, and harveſted the end of September. 3. *Formentone quarantino*, ſown after wheat or rye, and cut the end of October.

Venice.—This plant was cultivated in the Poleſine de Rovigo, towards 1560; and ſpread through Lon[illegible] beginning of the ſeventeenth century *.

* *Agoſt. Gallo.* Notes, p. 534.

Olives.

STATE OF VENICE.—On the banks of the Lago di Guarda are the only olives I have ſeen ſince I left the country of Nice; but the number is not conſiderable, and moſt of them are dead or nearly ſo, by the froſt of laſt winter, which made ſuch deſtruction likewiſe in Fance.

Tuſcany.—Near Florence, at Martelli, the product of a farm of 190 *ſtiori* was as follows: in 1786, thirty *barrils*. In 1787, it was no more than three. In 1788, it yielded eight. In 1789, it was twenty-five but on an average ten; for which produce there are two hundred trees. They are dunged every two or three years, and dug about once in three years. They are reckoned to leſſen the product of corn one fifth; this is a notion of the country, but I believe very far from accurate. The average price of oil is 5 *ſcudi* per *barril*, of one hundred and fifty pounds (1l. 8s. 4d.); ten *barrils* amount to 14l. 3s. 4d.; and as there are about thirty-four acres in one hundred and ninety *ſtiori*, the product of oil is 8s. to 9s. per acre: a ſum that yields no very favourable impreſſion of the culture:—and, divided amongſt two hundred trees, it does not amount to 1s. 6d. a tree.

The plain of Florence is all lined into rows of theſe trees, with vines between and upon them; in ſome places, an eſpalier of vines between the rows of olives; and when all are well cultivated, the olives yield the greateſt produce, next the wine, and then the corn. I viewed, near Florence, ſome fields, in which I found twenty olives on a *ſtiora* of land, but this is not common: and on a very bad ſtony ſoil, though in the plain, I found that it took twenty trees of twenty-five years growth to yield a *barril* of oil. But in a fine ſoil, and with very old trees, a *barril* a tree has been known. Vines are ſuffered here alſo to run up the trees, but they reckon it a bad cuſtom. The price of oil is more than doubled in forty years. Very few olives were loſt by the laſt hard froſt, but great numbers by that of 1709. Landlord's half produce of ſome fields I viewed—oil, 10 *pauls*; grain, 7; wine, 1; in all 18 *pauls* per *ſtiora* (2l. 5s. per Engliſh acre.)

This year, 1789, the Grand Duke, for the firſt time, has given a gold medal, of the value of 25 *zecchini*, for the greateſt number of olives planted; no claimant to be admitted for leſs than five thouſand: in conſequence of this premium above forty thouſand trees have been planted. It will be continued annually.

There is, in the Maremma ſome remarkable inſtances of the vaſt age to which olives will attain: Sig. Zucchino, profeſſor of agriculture at Florence, informed me that, upon examining the hills in the middle of that tract, he found in the midſt of woods, and almoſt over-run with rubbiſh, olives of ſo immenſe an age and magnitude that he conjectures them to have been planted by the ancient Hetruſcans, before the Romans were in poſſeſſion of the country; there muſt, of courſe, be much uncertainty in any conjectures of this kind, but a great antiquity of theſe trees is undoubted.

Rice.

PIEDMONT.—*Ciglione to Verceil*—They are now threſhing rice with horſes, as wheat in Languedoc;—threſh as much in the night as in the day:—meet alſo gleaners going home loaded with it. About five miles before Verceil the rice-grounds are in great quantities: their culture, however, of this crop ſeems to want explanations. Here is, for inſtance, a great field, which was under rice laſt year, now left to weeds, with hogs feeding.—Why not ſown with clover among or after the rice? They never plough

but once for rice. The peaſants are unhealthy from the culture, yet their pay not more than 24*ſ.* to 30*ſ.* a day. The ſoil of the rice-grounds here is that of a fine loamy turnip ſand; there is a mound raiſed around them, for the convenience of flooding at will.

Vercelli.—Rice is here reckoned the moſt profitable of all the cultivation of Piedmont; for it yields a greater value than wheat, and at a leſs expence. It demands only one ploughing, inſtead of ſeveral. Seed only four *mine*, at 1 livre. Watering at 2 livres 5*ſ.* Cutting, the end of July, 10*ſ.* The product is ſixty *mine* rough, or twenty one white; the latter at 4 livres, or 84 livres; and four *mine* of a ſort of bran, at 15*ſ.* or 3 livres, in all 87 livres (ſomething under 5l. an acre). It is ſown three years in ſucceſſion, and the fourth a fallow, during which the land is dunged. The price of theſe lands 500 livres or 600 livres the *giornata*. As rice can be ſown only on land that admits watering at pleaſure, I do not fully comprehend this account. Why, for inſtance, is not the land laid down for meadow, which evidently pays much better, and ſells at a higher price? I ſuppoſe rice is ready money on demand, and meadows muſt be converted to caſh circuitouſly. Good wheat land ſells at 800 livres.

To Novara.—Paſſing the Seſia, which exhibits a bed of five times as much gravel as water, in three or four miles the quantity of rice is conſiderable: the ſtubble is green, and in wet mud; the ſheaves thin. It extends on both ſides the road for ſome diſtance; the whole incloſed by ditches, and rows of willow poplar pollards, as bad to the eye as it can be to the health. One or two fields are not yet cut; it looks like a good crop of barley, being bearded. After Novara, ſee no more of it.

Milanese.—*Milan to Pavia.*—The rice-grounds receive but one ploughing, which is given in the middle of March, and the ſeeds ſown at the end of the ſame month, in water to the ſeedſman's knees, which is left on the ground till the beginning of June, when the crop is weeded by hand, by women half naked, with their petticoats tucked to their waiſts wading in the water; and they make ſo droll a figure, that parties in pleaſantry, at that ſeaſon, view the rice grounds. When the weeding is finiſhed, the water is drawn off for eight days; and it is again drawn off when the ear begins to form, till formed; after which it is let in again till the rice is nearly ripe, which is about the end of Auguſt, when it is reaped, or in the beginning of September; and by the end of that month, all is finiſhed. Quantity of ſeed, the eighth of a *moggio* per *pertica*, produce twenty-five to thirty *moggio* rough, or eleven and a half or twelve white. Price 37½ livres the *moggio*, (17l. 8s. per Engliſh acre,) which produce is ſo large, that this minute I ſuſpect the higheſt crop gained, and not an average one. The *moggio* of rice weighs one hundred and ſixty pounds of twenty-eight ounces. The ſtraw is of uſe only for littering cows; and the chaff, like that of all other grain, from a notion of its being unwholeſome, is thrown on to the dunghill. They ſow rice three years in ſucceſſion, and then a courſe of ſomething elſe. See *Courſes of Crops*. The rice is rendered merchantable by being pounded in a mill by ſtampers, turned by a water-wheel.

In the great road there is a ſtone, at five miles from Milan, nearer than which it is prohibited to ſow rice.

State of Venice.—*Verona.*—Of the produce of the rice-grounds in the Veroneſe, they reckon one-third for expences, one-third for water, and one-third profit.

Parma.—Count Schaffienatti has ſown rice, at Vicomero, eighteen years in ſucceſſion on the ſame land, without any reſt or manure. Sow on fifty-four *biolcchi* ninety *ſtaji*; and the produce eighteen for one. He digs the ground, as it is too marſhy to plough it well; this coſts 3000 livres (each 2½d.) The ſtraw ſells at 80 livres the load, of eighty *peſi*, of twenty-five pounds (three-fourths of a pound Engliſh). Oxen alſo eat it. Rice is reckoned

reckoned to yield four times over more nett profit than any other huſbandry, more even than watered meadows.

Vines.

PIEDMONT.—*Antibes to Nice.*—A ſingular cultivation of this plant ſurrounding very ſmall pieces from ſix to twenty perches, trained up willow trees; and the ſcraps of land within them cultivated. What a ſun muſt ſhine in a country where thick incloſures are counted by perches and not by acres.

Chentale to Racconis.—In rows at twelve to twenty feet, and appear like thoſe of hops in Kent, ſupported on willow poles, twelve feet high, ſome of which take root, but are afterwards pulled up.

Chivaſco.—Vines faſtened from mulberry to mulberry, but not running up theſe trees, only up willows, &c. that are between them.

MILANESE.—*Mozzata.*—Half this country is lined with vines, and it is reckoned that they will damage to the amount of one tenth of the produce: each *pertica* of vines, in a common year, will give fifty pounds of grapes, worth 6 livres the one hundred pounds of twenty eight ounces, hail allowed for; and of this half is the peaſant's ſhare for the expence of culture. At Leinate I viewed ſome wine-preſſes, which are enormous machines; the beam of one is forty-five feet long and four feet ſquare, and at the end where the ſcrew is, a ſtone of vaſt weight, for which there is a paved hole in the pavement, that it may keep ſuſpended; the cuves, caſks, and all the apparatus great: the quantity of vines one thouſand *pertica.* The ſeeds of the preſſed grapes are kept till dry, and then preſſed for oil; the ſeed of the grapes that yielded ſeventy *brenta* of wine will give ten pounds of oil: it is uſed for lamps. The poor people who bring their grapes to be preſſed pay one-twelfth of the wine. Price at preſent 6 livres the *brenta*, but only 3 livres for what is laſt preſſed. The firſt flow is trod out by men's feet. Common price 10 livres or 12 livres the *brenta.*

VENETIAN STATE.—*Bergamo.*—From entering the Venetian territory, near Vaprio, the country is almoſt all planted in lines of vines, and the ſpaces between tilled for corn.

To Breſcia.—This country, incloſed with hedges, beſides which it is lined in ſtripes of vines that are trained to low aſh and maple trees, with mulberries at the end of every row; but the vines are not trained up theſe trees, though faſtened to their trunks.

Vicenza.—The country, for thirty-two miles from Verona to Vicenza, except the watered parts, which are not a tenth of the whole, is lined into rows of pollards, each with three or four ſpreading branches, and at the foot of each two vines, many of them very old, with ſtems as thick as the calf of a man's leg; and many of the elms, maples, &c. are alſo old. They ſtand about a rod aſunder, and the rows from twenty five to thirty yards, and around the whole mulberries. Where the vintage is not finiſhed, the vines hang in feſtoons from tree to tree, garniſhed with an aſtoniſhing quantity of bunches of grapes.

Vines, near Vicenza, produce two *maſtati*, each of two hundred and forty bottles, per *campo;* the price 16 livres the *maſtato;* the *campo* here is larger than at Verona, amounting to near an Engliſh acre; this is about 17s. an acre, a produce very eaſily loſt in the damage done to the corn.

Padua.—The ſame huſbandry of pollards and vines continues hither. They reckon that vines pay better than mulberrries; but in the diſtricts of Verona and Vicenza mulberries are more advantageous than vines. This does not correſpond with ſoil, for that of Padua is deeper and richer, for the moſt part, than the other, and therefore leſs adapted to vines. In converſation with Abbate Fortis, on the wine of the Paduan, &c.

being ſo bad, he ſays, it is owing merely to bad management in making. They tread the grapes with their feet; and will keep it fermenting there even ſo long as fifteen days, adding every day more and more, till the ſtrength is exhauſted, and the wine ſpoiled; no cleanlineſs in any part of the operation, nor the leaſt attention in the gathering, or in the choice of the grapes. He further added, that Sig. Modena, a Vicentino cultivator at Vancimuglio adjoining the rice-grounds, and conſequently as little adapted as poſſible to vineyards, provided the ſoil and trees were the cauſe of bad wines, makes that which is excellent, and which ſell for ſo high as 30*ſ.* French per bottle: that Sig. Marzari, and Sig. il Conte di Porto, in the high Vicentino, with many others, as well as he himſelf, Abbate Fortis, has done the ſame with raiſins from vines that run up the higheſt trees, ſuch wine as ſells from 20*ſ.* to 35*ſ.* French the bottle: and that ſome of theſe wines are ſo good, that the Venetian ambaſſadors, at different courts, uſe them inſtead of Madeira, &c.; and the wines of Friuli as thoſe of Hungary, which they reſemble; yet theſe vines are all on trees. He alſo obſerved, that it has been found, by experiment, that vines in theſe rich lands, trained near the ground, as in France, have yielded raiſins and wine good for nothing; that the grapes even rot; that the land is too rich for the vines to have all the nouriſhment, unrivalled by the root of the trees. It is very much to be queſtioned, if the experiments here alluded to have been made with due attention: if the land is too rich for vines, plant them upon ſoils that are proper; and keep theſe low diſtricts for graſs and corn; but that vines, hidden from the ſun amongſt the branches of trees, can ripen properly to give a well-concocted juice, appears very dubious; and the fact of all the wine, commonly met with in this country, being bad, ſeems to confirm the reaſoning.

Ecclesiastical State.—*Bologna.*—All this country, where I have viewed it, is lined into rows of trees for vines, ten or twelve yards aſunder on the mountain, but more in the plain. But Sig. Bignami has his vineyard planted with *echalats* (poles), in the French way, about four or five feet ſquare, and he finds that theſe always give better wine than the vines trained to trees, and the land by *ternatura* gives a great deal more wine, though each vine ſeparately on trees gives more than each in this method. The object in this inſtance was the goodneſs of wine; Sig. Bignami thinks the common method moſt profitable. The vines are now (November) trained and pruned, and turned down five or ſix feet and tied; if allowed to mount, they yield much fewer grapes. Vines on the mountains yield thrice the value of the wheat, and the double of all other productions, wheat included.

Tuscany.—*Bologna to Florence.*—Vines in this route are planted differently from any I have yet ſeen. Some are in eſpaliers, drawn thinly acroſs the fields; others are trained to ſmall poſts, through which at top are two or three ſticks fixed to hold them up; others are in ſquares of five or ſix feet, and ſix or ſeven high, without ſuch poſts; but all in the arable fields are, generally ſpeaking, in lines.

Florence.—I here met with a caſe abſolutely in point to prove how miſchievous trees are to corn, even in this hot climate. A field under olives, which yielded in corn ſix and a half for one ſown, was grubbed, after which the common produce was fourteen for one. Now, as the olive is by no means one of the worſt trees for corn, this ſhews the great loſs that accrues from the practices I have noted throughout Lombardy. Yet in common converſation here as elſewhere, they tell you the injury is ſmall, except from walnuts, which do more miſchief than any other.

Modena.—It appears to be a ſingular circumſtance, that in the parts of this territory, near the hills, corn pays better than wine, but in the plain, wine better than corn: I ſuſpect that ſome miſmanagement occaſions this apparent contradiction. From Modena

to

to Reggio the country is planted in rows, as in the Venetian State, &c. and the trees that ſupport the vines being large, the whole has the appearance of a foreſt.

PARMA.—From Reggio to Parma, the ſame ſyſtem holds, but executed in an inferior manner. And from Parma to Vicomero, the trees that ſupport the vines are pollards, with old heads, like many we have in England, contrary to the practice of the Venetian State, where they are kept young. To Firenzuolo, the vines are all buried in like manner; ſome here are planted for props, and the poles which ſerve as ſuch are ſet in rows: in both methods the ſhoots are equally buried. A ſcattering of golden willow in the rows, I ſuppoſe for attaching the vines to the props. From Borgo St. Domino to Firenzuola, there is a decline both of vines and wood; the country is not as hitherto, regularly lined, and many large fields are without any; this is the more to be remarked, as here begin ſome inequalities of the country, the gentle ramifications of the Appenines. To Caſtel Giovanne, moſt of the fields have no vines, only a ſcattering; ſhoots buried as before, but the incloſures have many pollards in the hedges, like the woodlands of Suffolk. From Piacenza, after paſſing the Trebbia, the rows of vines are thirty to forty yards aſunder, with heaps of props ten feet long, ſet like hop-poles; very few or no vines trained to trees.

PIEDMONT.—*Paveſe* *.—The country is all the way hill and dale, the flat of Lombardy finiſhing with the Dutchy of Piacenza. It is about half incloſed, and half with rows of vines. There are alſo vineyards planted in a new method; ſingle row of vines, with a double row of poles, with others flat, ſo as to occupy four ridges and then four to ten of corn. Some vine ſhoots buried for a few miles, but afterwards none. Near Stradella the props appear like a wood of poles.

SAVOY.—The vineyards of Montmelian yield one and a half tonneau per journal, which ſell at 4½ louis the tonneau: all, not in the hands of peaſant proprietors, is at half produce.

SECT. IV.—*Of Implements and Tillage.*

Coni.—The ploughs have a ſingle handle, twelve or thirteen feet long, which throws the ploughman to ſuch a diſtance behind, that his goad is fixed in a long light pole. The oxen are yoked in the ſame manner as ours, but the bow is of iron under the neck, and the preſſure is received by two bits of wood. Some ploughs drawn by a yoke, others by two yokes of oxen.

Chentale.—The names which are given to the parts of a plough here are,—long handle of fourteen feet, *ſtiva*; beam, *bura*; head, *cannonlia*; coulter rivetted to the ſhare, *cultor*; ſhare, *maſſa*; ground-reſt, on which the ſhare ſheathes, ſeven feet long, *dentale*; earth-board, five feet long, *oralia*.

The Count de Bonaventa, in explaining to me their tillage, ſhewed the criterion, as old as Columella, of good ploughing, by thruſting his cane acroſs the ridges, to ſee if reſt-baulked. They plough moſtly on the three feet ridge, forming and reverſing at one bout, *i. e.* two furrows, the work ſtrait. Uſe no reins, and have no driver, though the ploughman is above twenty feet from the oxen. Two ſmall beaſts cut a good furrow on the top of the old ridge, ſeven inches deep, and theſe ploughs, long as they are in the ground, certainly do not draw heavily.

The oxen, whether at plough or in the waggons, do not draw, as I conceived at firſt ſight, by the ſhoulder, but in a method I never ſaw before, nor read of; they draw by

* The country ceded by Auſtria to Sardinia, part of the diſtrict of Pavia.

preſſing the point of the withers againſt the yoke, and not [illegible] examining them, the maſter and man contended that the ſtrength of an ox lies there, and not in his ſhoulders, nor in his head, or roots of the horns. It appears a ſtrange practice, but it is yet ſtranger, that yoke a beaſt how you will, he does his work, and apparently without diſtreſs.

Chentale to Racconis.—They have here a moſt ſingular cuſtom, which is that of ſhovelling all the moveable ſoil of a field into heaps of a large load, earth, ſtubble, and weeds; they ſay, *per ingraſſare la terra.*

To Turin.—The lands ſown with wheat, on three feet ridges, is worked fine with a machine of wood, at the end of a handle, formed nearly like a hoe. Wherever one ſees theſe operoſe niceties, we may conclude the farms are very ſmall.

Turin.—Plough with a pair of oxen, no reins, no driver; go to work at five in the morning, and hold it till night, except one hour and a half at dinner, that is twelve hours work, and do a *giornata* a day, ſomething under an acre, one bout to a three feet ridge, reverſing.

Vercelli.—Price of a ploughing, 3½ livres per *giornata*, this is about 3s. 4d. per Engliſh acre.

MILANESE.—*Milan to Pavia.*—Hire of a ploughman and pair of oxen, 4 livres a day, but if no food for the oxen, 6 livres. The ploughs here vary from thoſe of Piedmont. The handles are not above half as long, and are called *ſtiva;* the beam, *buretto;* the coulter, *coltura;* the ſhare, *maſſa;* the earth-board, *orechio;* the land-board, *orechini.* There is a moſt groſs and abſurd error in all the ploughs I ſaw, which is the poſition of the coulter, eighteen or twenty degrees too much to the land; every one who is acquainted with the right ſtructure of a plough, knows that it ſhould juſt clear the ſhare; this great variation from the right line, muſt add greatly to the draft; and in difficult land fatigue the cattle.

Mozatta.—A light poor plough, the ſhare with a double fin, but ſo narrow as to cut only four inches of the furrow, the heel of the plough is nine or ten inches wide, the work it performs is mere ſcratching, and the land they were ſowing with wheat, a bed of *triticum repens* and *agroſtis ſtolonifera.* They have here a great opinion of digging; and a proverb which ſays, *La vanga ha la punta d'oro.*—The ſpade has the point of gold.

Codogno.—Here as near Milan, the coulters are many degrees out of the line of the ſhare, and the ſhares not more than four inches wide. Shocking!

Codogno to Crema.—The harrows in this country have handles to them of wood; I am amazed that this practice is not univerſal; yet I never ſaw it before, except on my own farm.

VENETIAN STATE.—*Bergamo.*—In paſſing from Vaprio to this place, they are ploughing with a pair of oxen a breaſt, and two horſes before them in a line; wheel-ploughs, ſhare five inches wide, and with a double fin. Near the town of Bergamo, I ſaw them ploughing a maize ſtubble for wheat, as full of graſs almoſt as a meadow: a lad drives, and another ſtout one attends to clear the coulter from graſs, &c. the plough low on the carriage, with wheels, the breaſt all iron, and not ill formed, the fin of the ſhare double, and about eight inches wide, the coulter nearly in the ſame direction as the ſhare, but clearing four inches to the land ſide, two ſhort handles. The furrow full nine inches deep, but crooked, irregular, and bad work. Notwithſtanding this depth, they are great friends to the ſpade. From four to ſix for one, are common crops with the plough, but twelve to fourteen for one are gained by the ſpade. There muſt be an inaccuracy in this, the difference cannot be owing merely to digging. We may be certain that the huſbandry in other reſpects muſt be much better.

Vicenza

They here plough with four oxen in harneſs, many of them are of an iron-grey colour, with upright thick ugly horns. Some however are fine large beaſts.—Their plough is a ſtrange tool; it is two feet four inches of Vicenza wide (their foot is above one and a half Engliſh): the ſhare has a double fin of a foot wide, conſequently cuts half a foot in the furrow of more than two; has wheels, but no coulter. The land-board is called *fondelo*; the ſhare, *vomero*; the earth-board, or breaſt, *arſedeman*; two ſhort handles, the left *finiſtrale*; the right *brancolé*; the beam, *pertica*.

Ecclesiastical State.—*Bologna.*—The coulters of the ploughs here ſtand ſixteen degrees from the right line, an incredible blunder, had I not before met with it in the Milaneſe. The beam, *pertica*; the handles, *ſtiva*; the mould-board, *aſſa*; the ſhare, *gomiera*; the ground-reſt, *nervo del ſocco*; the coulter, *coutre*.

Tuscany.—*Florence.*—Here the beam is called *ſtanga*, and *bura*; the ſingle handle, *ſtagola*; the body of the plough, *chicapo di aratro*; the ſhare, *vangheggiola*. The body is hewn out of one large piece of wood, the fin double, and ſeven or eight inches wide. I ſee no ploughing but on three feet ridge-work, reverſing. They are now ſowing wheat among tares, about ſix inches high, and plough both in together at one furrow, ſplitting the ridges with a double-breaſt plough. Oxen are uſed that draw by the nape of the neck; then women with a kind of half pick, called *marona*, work the ridge fine. No dreſſing of the ſeed againſt ſmut, &c.

Parma.—The plough here has wheels, a ſingle-breaſt that turns to the right, and pretty well, a double finned ſhare, and the coulter ſtanding three inches to the left of the right line; drawn by two oxen, and two cows, with a driver.

Savoy.—The oxen in the vale of Chamberry, draw not only by the horns, the yokes bound to them in the common way by leathers, but they have a double bar, one againſt the ſhoulders, as if the beaſt might be able to draw by both at pleaſure.

Manures.

Nice.—There is here a greater attention paid to ſaving and uſing night ſoil, than even in Flanders itſelf. There is not a neceſſary in the town which is not made an object of revenue, and reſerved or granted by leaſe. In all the paſſages between the walls of gardens in the environs, are neceſſaries made for paſſengers. The contents are carried away regularly in barrels, on aſſes and mules, and being mixed with water, is given regularly to the vegetables of the gardens. The laſt winter having damaged many orange trees, they pruned off the damaged branches, and to encourage them to ſhoot again ſtrongly, the roots are dug around, and at the foot of each tree a good meſs of this invigorating manure is buried.

Milanese.—*Milan.*—Night ſoil is greatly valued, it is bought at a good price, and ſpread on ſowing wheat.

State of Venice.—*Vicenza.*—Sig. Giacomello has tried gypſum with ſucceſs, broken ſmall and calcined in an oven, alſo in a lime kiln, pulveriſes it finely and ſifts it. He remarks that this is the chief uſe of calcination. Uſes it for clover, lucern, and meadows; ſows it as a top-dreſſing on thoſe plants, juſt as they riſe; never buries it; mixes with ſand, in order to ſpread equally; beſt to ſow it when the land is dry, never when the plants are high and wet; quantity, one hundred and forty pounds *groſſo*, upon one thouſand two hundred and fifty *tavoli* of Treviſo. If the land is bad, three hundred pounds, and on middling, two hundred pounds. The effect on perennial clover, upon good land, is ſuch, that any greater crops would rot on the ground. The ſame quantity of meadow

that gives without gypſum, a *carro* of hay, will, with that manure, ſpread about the 11th of November, produce two *carri* the year following; three *carri* the year after that; and on ſome meadows even to four *carri*. On old poor meadows, full of hard and bad graſſes, this manure does not take effect ſo ſoon, and requires a larger quantity of gypſum. (*Modi di aumentare i Beſtiami*, 1777, p. 9.)

Sig. Pieropan informed me that this manure has been uſed here for eight years with much ſucceſs, eſpecially on all dry lands, but is good for nothing on wet ones; it is ſuppoſed to act by attracting moiſture; four hundred pounds of twelve ounces are ſpread on a campo; beſt for clover, wheat, or natural graſs. It is ſaid to force land ſo much, that it demands more dung than if no gypſum had been ſpread.

Parma to Piacenza.—The dunghills in this country are neatly ſquared heaps.

CHAP. XXXIV.—*Of the Encouragement and Depreſſion of Agriculture.*

IN every country through which an inquiſitive man may travel, there can be no object of his inquiries more important than theſe—How far is government, and all the circumſtances any way dependent on government, favourable or unfavourable to the culture of the earth? In truth, this queſtion involves the whole circle of the political ſcience. In ſo immenſe a range, it is in the power of an individual to give but a few ſketches, which may afterwards, by ſome maſterly hands, be melted into one harmonious piece. All the writings on political œconomy which I have hitherto read, are filled too much with reaſonings, yet experiment ought to be the only foundation. The facts which I have collected under this head, may be thus arranged: — 1. Government. — 2. Taxation. — 3. Tythe. — 4. Commerce. — 5. Population. — 6. Prohibitions. — 7. Prices of commodities.

SECT. I.—*Of Government.*

It is a vulgar error of no inconſiderable magnitude, to imagine, as many writers have done, that all arbitrary governments are the ſame. Whoever travels into countries under various forms of dominion, will find from innumerable circumſtances, that ſtrong diſtinctions are to be made. The mildneſs of that of France can never be miſtaken, which was ſo tempered by what was the manners of the people as to be free in compariſon with ſome others. Among the Italian ſtates the difference will be found to be conſiderable.

The dominion of the houſe of Auſtria has been by ſome conſidered as hard, harſh, and unfeeling, till the admirable Leopold retrieved, by the wiſdom and humanity of his government in Tuſcany, the character of his Houſe. By the conſtitution of Milan, no new tax could be aſſeſſed or levied without the conſent of the States, but Mary Thereſa, about the year 1755, aboliſhed the States themſelves, which never were reſtored till Leopold came to the throne. It may eaſily be conceived, that ſuch a ſyſtem of deſpotiſm was followed by meaſures that partook of its ſpirit; the general farms, by which I mean the farming of the taxes, which had from the beginning of the preſent century been grievous to the people, became doubly ſo about the year 1753, when new ones were eſtabliſhed. The adminiſtration of theſe farms was cruel, or rather infamous; and the ruin brought on numbers for the ſmalleſt infraction of the regulations, ſpread a horror againſt the government through every corner of the Milaneſe, and tended ſtrongly to occaſion a declenſion in every ſource of national proſperity. The abolition of theſe farms

was

was the work of the Emperor Joſeph, who heard ſuch a reiteration of complaints againſt the farmers, whoſe great wealth * rendered them doubly odious, that he made ſuch repreſentations to his mother as were effectual, and they were aboliſhed about eighteen years ago. The preſent Emperor no ſooner came to the throne, than he re-eſtabliſhed that conſtitution of which his mother had deprived the Milaneſe; the States and the Senate were reſtored, and alſo the right of the States to appoint what is called an orator to Vienna, in fact, an ambaſſador paid by themſelves, to lay their repreſentations before the court without the intervention of a governor, a right which cannot be deemed unimportant. So that at preſent the government of Milan, though by no means ſuch as can meet our ideas of freedom, is yet a kind of limited monarchy; for aſſuredly that government which does not poſſeſs the power of taxation, muſt be eſteemed ſuch.

Count Firmian, while prime miniſter for the Milaneſe, was the author of a law, which, if it could be adopted in England, would be worth an hundred millions to us. It obliges all communities, &c. that poſſeſs waſte or uncultivated lands, to ſell them to any one that offers a price, in order to cultivate them, but they have the neceſſary liberty of publiſhing the price offered, and receiving propoſals of a better; a fair auction takes place, and the lands become cultivated. Such poſſeſſors of waſtes are even obliged to let them at an annual rent for ever by the ſame proceſs, if any offer of rent is made to them, be it as low as poſſible. And the effect of this excellent law has been the cultivation of many waſtes, but not all; for on returning from Mozzata to Milan, I paſſed a very extenſive one, highly capable of profitable cultivation.

VENICE.—The celebrated government of this republic, is certainly the moſt reſpectable that exiſts in the world, in point of duration, ſince it has laſted without any material change, and without its capital being attacked for 1300 years, while all the reſt of Europe and of Aſia has been ſubject to innumerable revolutions, and the bloodieſt wars and maſſacres, even in the very ſeat of empire. That duration is one of the firſt objects of a government, can never admit a doubt, ſince all other merit, however it may approach human perfection, is nothing without this. A well organized ariſtocracy, in which the greateſt maſs of the wiſdom of the community ſhall be found in a ſenate, ſeems from the vaſt and important experiment of this celebrated republic, to be eſſentially neceſſary to ſecure the duration of any government. But the duration of an evil becomes a miſchief inſtead of an advantage; and that tyranny which is ſo politically organized as to promiſe an immenſe duration, is but the more juſtly to be abominated. The knowledge which will reſult from long experience, may probably teach mankind the right compoſition of a mingled form, in which the ariſtocratic portion will give duration and firmneſs; the democracy, freedom; and the conformation of executive power, energy and execution. Perhaps the Britiſh government approaches the neareſt to ſuch a deſcription.

The reputation of the Venetian government is now its only ſupport, a reputation which it does not at preſent merit in the ſmalleſt degree: but as this idea is directly contrary to the accounts given by many travellers, I feel it neceſſary to premiſe, that I ſhould think it merely trifling with the reader to travel to Venice in order to write diſſertations in my own name, on the government of that republic; I do no more than hold the pen to report the opinions of Italians, on whoſe judgment I have every reaſon to rely, and as exaggerated panegyrics have been publiſhed of the government of this State, it is fair to hear what may be urged on the other ſide of the queſtion.

* One of them now living, Count de Crepy (what a plague have ſuch fellows to do with titles, unleſs to be written on the gallows on which they are hanged?) has between 20 and 30,000 zecchini a year in land. He was originally a poor boy, that ſold cloth on a mule at Bergamo; one of his commis made 400,000 zecchini.

For twenty years paſt, there has been in the republic little more than a multiplication of abuſes, ſo that almoſt every circumſtance which has been condemned in the arbitrary governments of Europe, is now to be found in that of Venice. And as an inſtance of the principles on which they govern their provinces, that of Iſtria was quoted. 1. To preſerve the woods (which belong to the Prince), they prevent the people from turning any cattle into them; and if any man cut a tree, he is infallibly ſent to the gallies, which has driven numbers out of that part of the country where the woods are ſituated.—2. There are great opportunities of making ſalt, and the pans might be numerous, but it is a monopoly held by the State; they purchaſe a certain quantity, at 10*ſ.* French, per quintal, and if more than the ſpecified quantity be made, it is lodged in their magazines on credit, and it may be two, three, or four years before the maker of it be paid.—3. Oil is a monopoly of the city of Venice; none can be ſold but through that city, by which tranſit, an opportunity is taken to levy two ducats (each 4 livres of France) per barrel of one hundred pounds, and five more *entrée* into Venice.—4. The coaſt abounds remarkably with fiſh, which are taken in almoſt any quantity; ſalt is on the ſpot, yet no uſe can be made of it but by contraband, except for Venice ſingly. Thus a great trade in barrelled fiſh is foregone, in order to make a whole province beaſts of burthen to a ſingle city.—5. The heavy tax of a *ſtajo* of wheat, one hundred and thirty pounds, is laid on each head of a family, payable to the Venetian bailiff.

The practical reſult of ſuch principles of government, confirms whatever condemnation theory could pronounce. Every part of the province, except a diſtrict that is more favoured than the reſt in ſoil and climate, is depopulated; and ſo much are the woods preferred to the people, that parts which once abounded with men, are become deſerts; and the ſmall population remaining in other parts, is every day diminiſhing. Dalmatia is in a yet worſe ſtate; for the greater part is a real deſert: in 1781 and 1782, no leſs than twelve thouſand families emigrated from the province. As I have not travelled in theſe provinces, I do no more than report the account given by well-informed Italians, though not reſiding in the territories of the republic. Before the government of this ſtern ariſtocracy is made the ſubject of exaggerated praiſe, let facts counter to theſe be made the foundation.——But farther,

In the immediate operations of their government at home, the ſame weakneſs is found. Their poverty has increaſed with their revenue; they have raiſed the leaſes of the farmers general (for that odious collection is the mode they purſue) conſiderably; and near twenty years ago they ſeized many of the poſſeſſions of the monks—that act for which the National Aſſembly of France has been condemned; but which, in the hands of numerous other governments, has either paſſed without animadverſion, or has been commended. They did the ſame with the eſtates of ſome of the hoſpitals, but though ſuch exertions have raiſed their revenue to 6,100,000 ducats, (1,054,000l.) yet they have found their affairs in ſuch a ſituation, from bad management, that they have been obliged to ſell the offices, which were in better times granted to merit; and committed a ſort of bankruptcy, by reducing the intereſt of their old debts from 5 to 3 per cent. Their credit is at ſo low an ebb, that no longer ago than laſt June, they opened a ſubſcription to fund 700,000 ducats, and notwithſtanding every art, could procure no more than about 300,000. Inſtead of their famous chain, which marked the wiſdom of their œconomy, their treaſury is without a ſol: and to ſhew the apprehenſions they have of provinces under their dominion throwing off their yoke, if they are at a ſmall diſtance from the ſeat of government, the State makes a diſtinction in the political treatment of the Bergamaſque and Breſcan territories, from thoſe nearer to Venice, in reſpect to privileges, puniſhments, taxes, &c. No favourable feature of their government; and which ſhews that they think the people made for their city.

Perhaps,

Perhaps, in the ſyſtem of their finances, there is no circumſtance that ſhews a decline of the real principles of their government, more than that of putting contraventions of the tobacco farm under the controul of the State inquiſitors; which muſt have been done ſince M. de la Lande's ſecond edition, as he mentions expreſsly their having nothing to do with the finances *. A conduct utterly ridiculous, in a ſtate that once conducted itſelf with ſo much dignity.

Even in the delicate article of imparting the privileges of the ariſtocracy, to the nobility of Terra Firma, by whom they are in general deteſted, they have exhibited no doubtful ſymptoms of weakneſs and want of policy. Reputation has been for many years the great ſupport of their government; to manifeſt therefore ſuch a want of policy, as ſtrikes the moſt careleſs eye, is to ſuffer in the tendereſt point. In 1774, they offered gratis, a ſeat in the *conſiglio maggiore*, to forty families, their ſubjects, who poſſeſſed 1200l. a year in land; provided there were four degrees of nobility, on the ſide of both huſband and wife. Great numbers of families were eligible, but not ten in the whole would agree to the propoſal. To offer a ſhare in the legiſlature of ſo celebrated a republic, which in paſt periods would have been ſought for with ſingular avidity, and to ſuffer the mortification of a refuſal, was exhibiting a ſign of internal weakneſs, and of want of judgment, adapted to reduce the reputation of their policy to nothing. The motives for the refuſal are obvious: theſe families muſt of courſe remove to Venice; that is, to go from a city where they were old and reſpected, to another where they would be new and deſpiſed. Their eſtates alſo would not only ſuffer from their abſence, but would be ſubject to new entails, and held by other tenures; no mortgage of them is allowable; and they are ſubject to peculiar laws of inheritance. In addition to theſe diſadvantages, they are cut off from ſerving foreign princes; whereas the nobility of Terra Firma engage in ſuch ſervices. The Emperor's ambaſſador at Turin, is a ſubject of Venice; and one of the Pellegrini family, a field marſhal in his army. Nor did the noblemen of Terra Firma refuſe the favour for theſe reaſons alone; they dreaded the power which the State exerts over the noble Venetians, in ſending them upon expenſive embaſſies, in which they muſt ſpend the whole of their income, and, if that be not ſufficient, contract debts to ſupport themſelves; for theſe reaſons, and many others mentioned to me, which I did not equally underſtand, the government might have known before they made the offer, that it would ſubject them to the diſgrace of a refuſal. Long before the period in queſtion, conſiderable additions had been made to nobles of Venice, from the Terra Firma, but theſe honours were paid for; the price 17,000l. ſterling; 7000l. in caſh, and 10,000l. lent to the State in perpetuity.

It is a curious circumſtance, which marks undeceivingly the general features of the Venetian government, that about forty years ago, as well as at other periods, there were negociations between the Court of Vienna and the Venetians, relative to an exchange of territory; the diſtrict of Crema was to have been given by Venice, for a part of the Ghiara d'Adda; the rumour of which filled the people of the latter with the greateſt apprehenſions; they felt even a terror, at the idea of being transferred to the government of Venice; knowing, certainly, from their vicinity, that the change would be for the worſe. This aſcertains the comparative merit of two governments, that one is leſs bad than the other.

Upon the whole it may be remarked, that the wiſdom of the Venetian government flows entirely from its interior organization, which is admirably framed; but abuſes, in ſpite of this, have multiplied ſo much, that the firſt real ſhock that happens will overturn

* *Voyage en Italie*, tom. vii. p. 7.

it

it. The fall of a government, however, which has ſubſiſted with great reputation ſo much longer than any other exiſting at preſent, ought to be eſteemed a great political loſs, ſince the eſtabliſhment of new ſyſtems is not at preſent wanted for the benefit of mankind, ſo much as the improvement of old ones; and if by any amelioration of the Venetian ariſtocracy, the benefit of the common people could be better ſecured, it might yet laſt in enlightened ages, as well as through thoſe of darkneſs and ignorance.

BOLOGNA.—The government of the church, though in ſo many reſpects conſidered as one of the worſt in Europe, ought not to be condemned too generally, for ſome diſcrimination ſhould be uſed. Thus in point of taxation, there are few countries that have leſs to complain of than this, as I have ſhewn in the proper place; and another circumſtance was mentioned to me here, which proves that it is not the Pope's fault that it is not better—His Holineſs was ready to aboliſh all fêtes, confining them to Sunday; and made the offer to the Senate of Bologna, if they would apply to him for the purpoſe; great debates enſued in that body, and it was determined not to make the application.

TUSCANY.—The government of the Grand Duke is, as every one knows, abſolute; it admits therefore of no other diſcrimination, than what reſults from the perſonal character of the Prince. The circumſtances I noted, during my reſidence at Florence, will ſhew that few ſovereigns have deſerved better of their ſubjects than Leopold: the details, however, which I ſhall enter into, will be very ſlight, not that the ſubject wants importance, but becauſe many other books contain large accounts of this period; and eſpecially the collection of his * laws, of which I wiſh to ſee a complete Engliſh tranſlation, for the uſe of our legiſlators. The encouragements which this wiſe and benevolent ſovereign has given to his ſubjects, are of various deſcriptions; to claſs them with any degree of regularity, would be to abridge that collection; a few, that bear more or leſs upon agriculture, I ſhall mention.

I. He has aboliſhed tythes, which will be explained more at large, under the proper head.

II. He has eſtabliſhed an abſolute freedom in the trade of corn.

III. He has for many years contributed one-fourth part of the expence of buildings, in the Val de Nievole, and the lower province of Siena.

IV. He has this year made the culture of tobacco free, and engaged to buy all that is raiſed at 16*ſ.* the pound.

V. He has extinguiſhed the national debt of Tuſcany, which had exiſted from the time of the republic; for it deſerves noting (in order for ſome future hiſtorian † of the modern ages, to mark the fact that the richeſt people run in debt the moſt) that the republic of Florence was one of the moſt commercial and rich in Europe. Two evils attended this debt, which the Grand Duke bent his operations to remove; *firſt*, three or four millions of it were due to foreigners, particularly to the Geoneſe, which carried much money out of Tuſcany; and, *ſecondly*, there were diſtinct bureaus of collection and payment, for tranſacting the buſineſs of theſe debts. To remedy this double miſchief, he firſt bought up all that part of the debt due to ſtrangers, which he effected by

* *Collezione di Leggi*, 8vo. 10 vols.—Siena.

† There is no work in the whole range of literature, more wanted than a Modern Hiſtory of Europe, written philoſophically; that is to ſay, with due attention to the progreſs of arts, ſciences, and government; and with none paid to wars, battles, ſieges, intrigues, generals, heroes, and cut throats, more than briefly to condemn them: in ſuch a work, the circumſtance of the richeſt countries in Europe, having plunged themſelves the deepeſt and moſt ruinouſly in debts, to ſupport wars of commerce and ambition, ſhould be particularly explained and condemned.

the operation of a ſteady and wiſe œconomy; he then called on the Tuſcan creditors to liquidate their debts, in the ratio of 3 per cent.; thoſe who had money did it; and to thoſe who had none, he lent the neceſſary ſums: by this method, the diſtinct receipt and payment were aboliſhed; the accounts were melted into the land-tax; and a number of revenue officers, &c. were reformed: nine or ten millions of crowns were thus extinguiſhed.

VI. He has aboliſhed all rights of commonage throughout his dominions, and given the powers of an univerſal incloſure.

VII. He has ſold a conſiderable portion of the eſtates belonging to the ſovereign, which has occaſioned a great increaſe of cultivation, and the ſettlement in his dominions of many rich foreigners *.

VIII. In levying taxes, he has aboliſhed all the diſtinctions of noble, ignoble, and eccleſiaſtical tenures; and all exemptions are ſet aſide.

IX. He has built a magnificent lazaretto at Leghorn, and ſpent three millions on roads; but it would be entering too much into detail to ſpecify his works of this ſort; they are numerous.

The effects of ſuch an enlightened ſyſtem of government have been great; general aſſertions will not deſcribe them ſo ſatisfactorily to a reader as particular inſtances. Sig Paoletti, who has been *curé* of the pariſh of Villamagna forty-three years, aſſured me that the forty farms, of which it conſiſts, have riſen in their value full 2000 *ſcudi* each in that time, which is about cent per cent. of their former value; this great improvement has been chiefly wrought of late years and eſpecially in the laſt ten. It highly merits notice, that the countries in Europe, whoſe whole attention has been given excluſively to their commerce and manufactures, and particularly England, where the commercial ſyſtem has been more relied on than in any other country, have experienced nothing equal to this caſe of Tuſcany, the government of which has proceeded on a principle directly contrary, and given its encouragement *immediately* to agriculture, and *circuitouſly* to manufactures. In the tours I made through England, twenty years ago, I found land ſelling on an average at thirty-two and a half years purchaſe; it ſells at preſent at no more than twenty-eight. While Tuſcany therefore has been adding immenſely to the money value of her ſoil, without trade and without manufactures, (comparatively ſpeaking to thoſe of England,) we have in the ſame period, with an immenſe increaſe of trade, been loſing in our land. This fact, which is unqueſtionably true, is a curious circumſtance for political analyſis: it proves ſomething wrong in our ſyſtem. Population in Villamagna has augmented about a ſeventh, in the ſame period.

I ſhall not quit this article, without giving the preference decidedly to Leopold, Grand Duke of Tuſcany, as the wiſeſt of the princes, whoſe power admits a compariſon in the age in which he lives: thoſe are mean ſpirits, or ſomething worſe, that will heſitate a moment between him and Frederic of Pruſſia: a ſovereign no more to be compared to him, than the deſtroyers and tyrants of mankind are to be placed in competition with their greateſt benefactors †.

* By the general regulations for the diſtrict of Florence, May 23, 1774. cap. 35. it is ordered that all the landed property of the communities, kept in adminiſtration, or let, ſhall be ſold or let on long leaſe. *Paoletti*, p. 85.

† The conduct of this Prince in his new ſituation, to which he acceded at a moſt critical and dangerous moment, has been worthy of his preceding reputation, and has ſet a ſtamp on the rank in which I have ſuppoſed him. A few years more added to the life of Joſeph, would have ſhivered the Auſtrian monarchy to nothing; Leopold has, by his wiſe and prudent management, every where preſerved it.

MODENA.—

MODENA.—In an age in which the ſovereigns of Europe are incumbered, and ſome of them ruined by debts, a contrary conduct deſerves conſiderable attention. The Duke of Modena, for ten years paſt, has practiſed a very wiſe œconomy: he is ſuppoſed, on good authority, to have ſaved about a million of *zecchins*, (475,000l.) and he continues to ſave in the ſame proportion. This is a very ſingular circumſtance, and the effect of it is obſervable; for I was aſſured at Modena, that this treaſure was much greater than the whole circulating currency of the Dutchy; and they ſpoke of it as a very miſchievous thing, to withdraw from circulation and *uſe*, ſo conſiderable a ſum, occaſioning prices generally to riſe, and every thing to be dear. By repeated inquiries, I found this dearneſs was nothing more than what is found in the States around, which have all experienced, more or leſs, a conſiderable riſe of prices in ten years. But how could withdrawing money from circulation raiſe prices? It ought on the contrary, in a country that has no paper-money, to lower them. That this effect did not follow, we may eaſily conclude from theſe complaints. But the very perſons who complained of this treaſure could not aſſert that money was more wanted in the Dutchy than before it was begun to be ſaved. They even gave a proof to the contrary, by affirming the rate of intereſt to be at preſent 4½ per cent. only. Upon the whole, the effect is evidently harmleſs; and it is a moſt curious fact in politics, that a government can gradually draw from circulation a ſum that in ten years exceeded the current coin of the State, without cauſing an apparent deficiency in the currency, or any inconveniency whatever. Concluſions of infinite importance are to be drawn from ſuch a fact; it ſeems to prove, that the general modern policy of contracting public debts, is abſurd and ruinous in the extreme; as ſaving in the time of peace is clearly without any of thoſe incoveniences which were once ſuppoſed to attend it; and by means of forming a treaſure, a nation doubles her nominal wealth, that ſort of wealth which is real or imaginary, according to the uſe that is made of it. The reputation, preventing attacks, is perhaps the greateſt of all. How contrary to the funding ſyſtem, which carries in its nature, ſuch a probability of preſent weakneſs, and ſuch a certainty of future ruin!

PARMA.—The river from Parma to the Po has been ſurveyed, and might be made navigable for about 25,000l. ſterling; but to the honour of the government which has been diffuſed through ſo many countries by the Houſe of Bourbon, no ſuch undertaking can here be thought of. Don Philip's hiſtory, it is to be hoped, will be written by ſome pen that can teach mankind, from ſuch an inſtance, of what ſtuff men are ſometimes made, whom birth elevates to power. The preſent Duke ſpends too much money upon monks, to have any to ſpare for navigations.

PIEDMONT.—The Houſe of Savoy has, for ſome centuries, poſſeſſed the reputation of governing their dominions with ſingular ability; and of making ſo dexterous a uſe of events, as to have been continually aggrandizing their territory. The late King was among the wiſeſt princes of his family, and ſhewed his talents for government in the practice of an enlightened and ſteady œconomy: it deſerves no ſlight attention among the princes of Europe, in the preſent ferment of men's minds, whether there be any other criterion of a wiſe government. The late King of Sardinia ſaved 12,000,000 livres; paid off a great debt; repaired all his fortreſſes; adorned his palaces; and built one of the moſt ſplendid theatres in Europe; all by the force of œconomy. The contraſt of the preſent reign is ſtriking; His preſent Majeſty found himſelf in poſſeſſion of the treaſure of his predeceſſor. He ſold the property of the jeſuits, to the amount of 20,000,000 livres; he has raiſed 7 or 8,000,000 livres by the creation of paper-money; thus, without noticing the portions of the Queen and the Princeſs of Piedmont, he has 00,000 livres extraordinary (2,000,000l. ſterling): all of which has been

laviſhed, and a debt contracted and increaſing; the fortifications not in good repair; and report ſays, that his army is neither well paid, nor well diſciplined. Theſe features are not to be miſtaken; the King, though free from the vices which degrade ſo many princes, and poſſeſſing many amiable virtues, is of too eaſy a diſpoſition, which expoſes him to ſituations, in which œconomy is ſacrificed to feelings—amiable for private life, but inconſiſtent with the ſeverity of a monarch's duty.

It is a moſt curious circumſtance in the King of Sardinia's government, that there is in this court a great deſire to ſell the iſland of Sardinia. A treaty was opened with the Empreſs of Ruſſia for that purpoſe, after ſhe was diſappointed in her negotiation with the Genoeſe, in the projected acquiſition of Spazzie, and of Malta: but in all theſe ſchemes of a Mediterranean eſtabliſhment, ſhe was diſappointed by the vigorous and deciſive interference of the courts of Verſailles and Madrid. One cannot have any heſitation in the opinion, that to improve this iſland, by means of a good government, would be more political than ſo ſtrange a meaſure as its ſale *.

I ſhall

It may not here be unuſeful to the reader, if I note ſome minutes taken at Turin concerning that iſland, one of the moſt neglected ſpots in Europe, and which, of courſe, betrays the effects of a vicious ſyſtem of government ſufficiently, for concluſions of ſome importance to be drawn. The marſhes are ſo numerous and extenſive, that the *intemperia* is every where found; the mountains numerous and high; and waſtes found ſo generally, that the whole iſle may be conſidered as ſuch, with ſpots only cultivated. Eſtates in the hands of abſentees are large, the rents conſequently ſent away, and the people left to the mercy of rapacious managers. The Duke of Aſſinaria has 300,000 livres a year: the Duke of St. Piera 160,000 livres: the Marquis of Paſcha as much; and many live in Spain. M. de Girah, a grandee, has an eſtate of two days journey, from Poula to Oleaſtre. The peaſants in a miſerable ſituation; their cabins wretched hovels, without either windows or chimnies; their cattle have nothing to eat in winter, but browzing in woods, for there are no wolves. The number of wild ducks incredible. Shooting them was the chief amuſement of an officer, who was nine years in the iſland, and who gave me this account. Proviſions cheap; bread, 1 *ſ.* the pound; beef, 2 *ſ.*; mutton, 2½ *ſ.*; a load of wood, of ten quintals, 4s. 9d. ſterling. Wheat is the only export; in this grain the lands are naturally fertile, yielding commonly ſeven or eight for one, and ſome even forty. No ſilk; and oil, worſe than eaſy to conceive. They have ſome wine almoſt as good as Malaga, and not unlike it. The great want of the iſland is that of water: ſprings are ſcarce, and the few rivers are in low bottoms. To theſe particulars I ſhall add a few from Gemelli.

Sardinia is a real deſert, for the moſt part; and where cultivated, it is in the moſt wretched manner: every thing conſumed in the iſland (except the immediate food of the day) is imported, even their flax ** and wood, from Corſica and Tuſcany; the miſerable inhabitants know not even the art of making hay; their crops are deſtroyed by wild animals, for the very notion of an incloſure is unknown. Leaſes are annual †. The tunny fiſhery produces from abroad 60,000 *ſcudi* ‡.

They have no mules; and the cities, as they are called, have been ſupplied with corn from abroad; with plenty in the iſland, which could not be brought for want of mules to convey it; inſomuch that a fourth part of the corn has been offered as a payment, for carrying the other three parts to the towns, and not accepted §.

In 1750, there were about 360,000 ſouls in Sardinia; in 1773, they were 421,597; ſo that in twenty-three years the increaſe was 61,597; occaſioned by an inſtitution called *Monti Frumentarii*, which furniſhes ſeed on credit to the poor farmers, who cannot afford to buy it ‖. Cattle in the iſland, in 1771; cows, &c. 1,710,259; oxen for work, horſes, mares, and calves bred for work, 185,266 ¶.

Working oxen,	97,753
Cows in calf,	13,099
Calves, *ammanſite*,	8,080
Horſes and mares,	66,334
Hogs,	152,471
Oxen and calves, *rudi*,	58,770
Carried over,	396,507

** *Riſiorimente Della Sardegna Gemelli*, 4to. vol. i. p. 50. † *Ibid.* p. 2. ‡ *Ibid.* p. 54.
§ *Ibid.* p. 5. ‖ *Ibid.* p. 46. ¶ *Ibid.* p. 350.

I ſhall not quit the ſubject of Italian governments without remarking, that ſuch deſerts as Sardinia, under a deſpotic monarch, and Iſtria under a deſpotic ariſtocracy, are to be claſſed among political leſſons. The tendency and reſult of ſuch caſes are ſufficient to ſhew the principles of government: the leaders ſhould ſpeedily correct the neglect of ſuch ſyſtems. When people are well governed, things cannot be thus. The wiſdom applicable to the preſent moment is to watch the colour and ſpirit of the age; to compound, and to yield, where yielding is rational.

ACADEMIES.—There is an agrarian ſociety at Turin, which has publiſhed four volumes of papers: a patriotic ſociety at Milan, which has publiſhed two volumes; neither of theſe ſocieties hath any land for trying experiments. At Bergamo, Breſcia, and Verona, there are alſo ſocieties without land. At Vicenza, the republic has given four *campi* for the purpoſe of experiments. At Padua, I viewed the experimental garden, of about a dozen acres, under the direction of Sig. Pietro Arduino; the expence of which is alſo paid by the ſtate. At Florence, a ſimilar one, under the conduct of Sig. Zucchino; this was in good order.

Venice.—Perhaps no country ever had a wiſer plan of conduct than the Venetians, in appointing a gentleman ſuppoſed, from his writings, to be well ſkilled in agriculture (Sig. Arduino), to travel over all their dominions, to make inquiries into the ſtate of agriculture, its deficiencies, and practicable improvements; and the idea was, that the academies of agriculture, in all the great towns of the republic, would have orders to take ſuch ſteps to effect the improvements as would moſt conduce to national proſperity. The plan was admirable; all, however, depends on the execution; as far as the academies are concerned, I ſhould expect it to fail, for none of them are eſtabliſhed upon principles that will allow us to ſuppoſe their members ſkilled in *practical* huſbandry; and without this, their ideas and their experiments would of courſe be viſionary.

Brought over,	396,507
Cows and cow-calves, *rudi*,	166,468
Goats,	378,201
He-goats,	42,597
Sheep,	768,250
Rams and wethers *.	143,502
	1,895,525

The miſerable ſtate of this iſland will beſt appear from calculating the number of acres. Templeman tells us, that it contains 6,600 ſquare miles. England he makes 49,450; the real contents of which, in acres, are 46,915,933; Sardinia, in the ſame ratio, contains 6,261,782: the number of goats and ſheep in the iſland is 1,332,550; there is, therefore, about one ſheep or goat to every five acres. Without viewing the iſland, I will venture to pronounce that it would, without cultivation, ſupport a ſheep per acre; above ſix millions; and reckoning the fleeces at 3s. 4d. each, the wool only would produce one million ſterling a-year. It is ſaid, the King of Sardinia offered to ſell the iſland to the Empreſs of Ruſſia for a million ſterling. The purchaſer of it would have a noble eſtate at twice that price, ſeeing the immenſe improvements of which it is capable. The fee-ſimple of moſt of the eſtates are to be purchaſed at a very eaſy rate, as well as the ſovereignty. The climate would admit of wool, as fine as the Spaniſh; if it were made into an immenſe ſheep-walk, with culture only proportioned to their winter ſupport, it would yield an exportable produce of full two millions ſterling annually.

Gemelli mentions the iſland being capable of producing as fine wool as Spain; they rear them only for ſupplying their tables with lambs and cheeſe; and to have ſkins for dreſſing the people; and no attention whatever is paid to the quality of the wool, which is good for nothing but to make the Sardinian ſerges.

Gemelli, tom. ii. p. 148.

It will not perhaps be improper to remark, under this head, that there is at Venice an inſtitution appointed by the ſtate, which, though not an academy, has much the ſame object, but with more authority, called the *Beni Incolti*. Their origin was about 1556, and in 1768 they added the *Deputati di Agricoltura*. I was informed, that they had once great power, and did much good, but that now there lies an appeal from their tribunal to the council of forty, which is attended with a conſiderable expence, and has done miſchief.

SECT. II.——*Of Taxation.*

PIEDMONT.—*Chentale.*—The land-tax near the town is 6 livres, or 7 livres per *giornata* per annum, on ſuch land as ſells at 800 livres to 1000 livres; which may be called about one-ſixth of the rent, ſuppoſing land to pay five per cent. The landlord, of courſe, pays his own capitation of 1 livre for himſelf, and every one in family; and the tenant pays as much for his family, being more than ſeven years old. But what is abundantly worſe, he pays 25*ſ.* a head for each cow, and 50*ſ.* for each ox. Salt is a monopoly: the ratio per head is eight pounds for every one in family, after five years old; four pounds for each ox and cow; and one pound for each ſheep and goat; and one pound more per cow for thoſe that give milk: the price, 4*ſ.* the pound.

Turin.—No capitation in Turin. The *entrées* are 8*ſ.* the *brenta*, fifty bottles of wine; 4 *den.* per pound meat. Salt, 4*ſ.* the pound. Hay, 1*ſ.* the *rubbio*, to the Hotel de Ville, for lighting the city. No taxes except the *entrées*. The land-tax in common is 4 livres the *giornata*. Salt, eight pounds each ox or cow, and four pounds each goat, ſheep, or calf, at 4*ſ.*; and if they want more, the reſt 2*ſ.* the pound; alſo eight pounds per head of the family. Capitation in the country, 1 livre per head, for all above ſeven years.

The following is a correct Detail of the Revenue of the King of Sardinia, which in 1675 *amounted only to* 7,000,000 *livres.* (306,250l.)

	Livres.
Cuſtoms—exciſe and ſalt,	14,000,000
Land-tax, which is between ſeven and eight per cent.	6,000,000
Since 1781, the clergy their thirds of the land-tax,	500,000
Addition to the land-tax, for the Nice road,	100,000
Contribution of the Jews,	15,700
Sale of demeſne lands falling into the crown,	800,000
Fees in the courts of juſtice,	110,000
Salt in the provinces of Alexandria and Novara,	65,460
Enrollment of all public acts and contracts,	276,100
Poſt-office,	300,000
Lotteries, royal powder works, glaſs-houſes, mines, ſalines, &c. about	3,000,000
Total, excluſive of the laſt article,	*22,167,260
Sterling	£ 1,158,813

The following is another account:—

Sale,	3,504,233	livres.
Tobacco,	2,415,797	
Dogana	2,377,673	
Carried forward	8,297,203	

Expenditure.

Intereſt of the public debt,	* 4,738,840
Army,	† 10,700,000
Ordnance,	359,044
Fortifications, royal houſes, and public buildings,	1,458,998
Houſhold,	2,500,000
Collection of the revenue,	3,572,398
King's privy purſe,	711,425
	24,040,705
Sterling,	£ 1,202,035

If, as calculated, there are two thouſand eight hundred and eighty-two ſquare French leagues in the King's continental dominions, the revenue amounts to 10,920 livres per league; and as the population is three millions, it is 8 livres 2½ *ſ.* per head. Savoy produces 2,432,137 livres; Piedmont, 11,444,578 livres; and the provinces acquired by the treaties of Worms and Vienna, 1,972,735 livres.

MILANESE.—*Milan.*—One livre on the manufacture of each hat; duty of 7½ *ſ.* per pound on the export of ſilk. There are *entrées* at the gates of Milan upon moſt commodities. Wine pays 42 *ſ.* the *brenta*, of ninety-ſix *bocali*, of twenty-eight ounces, or ſomething under a common bottle. Salt in the city is 12 *ſ.* the pound, and 11½ *ſ.* in the country. No perſon is obliged to take more than they think proper.

Brought forward,	8,297,203
Carne,	1,240,230
Carta bollata,	249 103
Polveri,	215,788
Contravenzioni	22,340
Gabella giaochi,	137,389
Reggio lotto del ſeminario,	388,487
Gran cancellaria,	162,537
Dritti inſinuazione,	44,647
Regie poſte,	394,214
Domaniali,	442,884
Caſuali,	1,449,548
	13,044,370

Sardinia, in 1783, produced 1,318,519 livres; the population 450,000 ſouls.

* The debt amounts to 58,000,000 livres, originally at four, now at three and a half per cent., and the fund is above par. There are 17,000,000 of bank notes, which at firſt bore four per cent., then two, and now none.

† Guards,	1,397
Fifteen regiments of the line,	17,784
Twelve regiments of militia,	7,200
Legion,	1,718
	28,099
Invalids,	2,400
Sundries,	1,141
Infantry,	31,640
Cavalry and dragoons,	3,289
	34,929
Of which foreigners,	7,536

Mozzata.—The land-tax throughout the Milaneſe is laid by a *cadaſtre*, called here the *cenſimento*; there was a map and an actual ſurvey of every man's property taken parochially, and a copy of the map left with the community of every pariſh. It was finiſhed in 1760, after forty years labour, under the Empreſs Maria Thereſa. The lands were all valued, and the tax laid at 26 *deniers*; 1 *ſ.* 6 *deniers* per *ecu*, of the fee ſimple. There is at Milan itſelf, as well as in the accounts of travellers, ſtrange contradictions and errors about this tax; as ſoon as I arrived I was told, even by very ſenſible men, that it amounted to full fifty per cent. of the produce. Monſ. de la Lande, in his *Voyage en Italie*, tom. i. p. 291, ſecond edition, ſays, that it is one-third of the revenue, or half the *produit net*; this is the confuſion of the *economiſtes*, with that jargon which ſeems to have enveloped the plaineſt objects in a miſt; for one-third of the revenue is not half the *produit net*. Monſ. Roland de la Platerie aſſerts, that it exceeds the half of the *revenu net*; but all theſe accounts are groſs errors. The inſtruction of the commiſſaries originally, who valued the country, was to eſtimate it below the truth; of which theſe gentlemen ſeem to have known nothing. Nor do they take into their conſideration the improvements which have been made in near thirty years; for the *cenſimento* remains as it was, no alteration having been made in the valuation; when they talk therefore of fifty per cent., or a third, or any other proportion, they muſt of neceſſity be incorrect, for no one knows the value of the whole dutchy at preſent; nor can tell whether the tax be the fifth or the tenth, or what real proportion it bears to the income. When I found the ſubject involved in ſuch confuſion by preceding travellers, I ſaw clearly that the way to come at truth was to enquire in the country, and not depend on the general aſſertions ſo common in great cities. At this place (Mozzata), therefore, I analyzed the tax, and by gaining a clear comprehenſion of the value, rent, produce, and tax of one hundred *pertiche*, was enabled to acquire a fair notion of the ſubject. Under the chapter of *arable products*, I have ſtated that one hundred *pertiche* yield a groſs produce, in corn, wine, and ſilk, of 1836 livres; of which the proprietor receives for his ſhare 785 livres. This land would ſell for 128$\frac{1}{3}$ livres per *pertica*; or 12,833 livres for the hundred. Now this hundred *pertiche*, of ſuch a rent and value, pays *cenſimento* 15$\frac{1}{2}$ *ſ.* per *pertica*, or 77 livres. This tax is paid by the farmer in the above-mentioned diviſion; but if there were no tax, the landlord would receive ſo much more as his portion; add therefore the tax, 77 livres, to his receipt, 785 livres, and you have 862 livres for the ſum which pays 77 livres; which is 8$\frac{8}{1}\frac{0}{6}\frac{4}{2}$, or 8l. 18s. per cent., or 1s. 9d. in the pound. So utterly miſtaken are the people of Milan, and the French travellers, when they talk of fifty per cent., and one-third, and one-half, the *produit net* and *revenu net!* And it is farther to be conſidered, that only half this payment of 77 livres goes to the ſovereign; for half is retained by the communities for roads, bridges, and other parochial charges; and in ſome caſes, the partial ſupport of *curées* is included. When this happens, the payment of 1s. 9d. in the pound is in lieu of our land-tax, tithe, and poor-rate; three articles, which in England amount to 8s. or 10s. in the pound. But though the burthen is nothing, compared with thoſe which cruſh us in England, yet 1s. 9d. is too heavy a land-tax; it is throwing too great a burthen upon the landed property, and leſſening too much the profit which ſhould ariſe from inveſting capitals in it; for it muſt be remarked, that this proportion is that of the improvements included; this 1s. 9d. might probably, twenty-five years ago, be 3s. or 3s. 6d.: it is improvements which have lowered it to 1s. 9d. at the preſent moment; thoſe ſilent and gradual improvements, which take place from what may be termed external cauſes, from the growing proſperity, and riſe of prices in Europe in general. Were 8$\frac{1}{4}$ per cent. to be laid on new inveſtments, not one livre would be inveſted. Lands belonging to eccleſiaſtics and hoſpitals are exempted.

It muſt be ſufficiently apparent, that this *cenſimento* muſt vary in every pariſh in the dukedom; it varies proportionably to the variation in the accuracy of the original valuation, and to the improvements that have been made, and to many other circumſtances. As it is at preſent, the land-owners are well ſatisfied, for the tax, though too heavy, is certainly not enormous; and it gives an accuracy and ſecurity to property that is of no ſlight value, as all mutations are made in reference to the parochial map of the *cenſimento*. They very properly conſider any alteration in it as a certain ſtep to the ruin of the Milaneſe. It has been reported that the Emperor has entertained thoughts of having a new valuation; but the confuſion and miſchief that would flow from ſuch a ſcheme might go much farther than the court could imagine, and might be attended with unforeſeen conſequences. In theſe opinions they are certainly right; for of all the curſes that a country can experience, a variable land-tax is perhaps the heavieſt.

Beſide the direct land-tax of the *cenſimento* there is a capitation that is included in the roll, like the cuſtom in England, of putting ſeveral taxes into one duplicate or aſſeſſment. On fifteen thouſand one hundred and ſeventy-three *pertiche* of land, at Mozzata, there are three hundred and eighty-two heads payable, and one thouſand three hundred ſouls. It may be calculated, that one hundred *pertiche* pay the capitation of three perſons, or 22½ livres.

Codogno.—The watered dairy lands, taken in general, ſell here at 300 livres the *pertica*; and lets, *net* rent, at 10 livres, the tenant paying all the taxes. The account is thus:

Rent to landlord, - - - -	10 *livres*	0 *ſ.*
Water-tax for diſtribution, - - -	1	0
Cenſimento to the prince and the community, - -	2	5
	13	5

The 1 livre we muſt throw out, being local, and then 12 livres 5 *ſ.* pays 2 livres 5 *ſ.*, which is 18 $\frac{9}{43}$ per cent., or 3s. 8d. in the pound; this is therefore doubly higher than in the poor country of Mozzata; one would ſuppoſe beforehand that the caſe would be ſo. The improvements in the Lodizan are not modern; probably there are no other but ſuch as are common to the whole duchy, and which ariſe from the general proſperity of Europe, rather than from any local efforts in this diſtrict; but in much poorer countries, the improvement of waſte ſpots, and a huſbandry gradually better, are more likely to have this effect; the fact, however, is ſo; there was no ſuch difference as this, when the *cenſimento* was laid, which ſufficiently proves that the huſbandry of the poor diſtricts has advanced much more in thirty years, than that of the rich ones, which once well watered admitted of little more. We may remark, that even here the accounts which Meſſrs. de la Lande and Roland de la Platerie have given, are groſs exaggerations.

Treviglio.—Upon four hundred *pertiche* of land and ſix houſes, the *cenſimento* amounts to 430 livres. Rent, 7, 9, and 12 livres the *pertica*, average 8 livres, or 3440 livres, about 12 per cent. or 2s. 4d. in the pound.

Upon the land-tax in general in the Milaneſe, I ſhould obſerve, before I quit that country, that in 1765 it was calculated * that the Dutchy of Milan contained fourteen

* *Bilancio della Stato di Milano preſentato a S. E. Conte di Firmian*, 12mo.

millions

millions of *pertiche*, and that lakes, roads, &c. deducted, there remained eleven millions three hundred and ſixty-ſeven thouſand, two hundred and eighty ſeven, of which, five millions ninety-eight thouſand ſeven hundred and fifty-eight were arable. It has been further ſtated *, that the *cenſimento* of the Dutchy, raiſed,

	liv.	*ſ.*	*den.*
For the Emperor, - - -	5,106,004	11	9
Suppoſe as much more for the communities,	5,106,004	11	9
	10,212,009	3	6

Eleven millions of *pertiche*, paying ten millions of livres, is about 18 *ſoldi* per *pertica* †.

In the *Epilogo della Scrittura Cenſuaria della Lombardia Auſtriaca*, MS. ſent by Count Wilizek, prime miniſter of the Milaneſe, to the Board of Agriculture at London, the general valuation of the territory, in the *cenſimento*, is thus ſtated:

Milano,	40,139,042 *ſcudi*
Mantova,	14,487,423
Pavia,	6,173,740
Cremona,	15,112,042
Lodi,	11,014,562
Como,	2,153,626
Value of the fee ſimple, -	89,081,337

If therefore the tax produces but about ten millions of livres, it is not more than 2 per cent. on the above capital.

STATE OF VENICE.—*Breſcia.*—The land-tax amounts to $1\frac{1}{4}$ livre per *jugero*, about 7d. the Engliſh acre; but there is a tax on all products, viz. wheat and rye pays the *ſoma* or *ſacco*, equal to two *ſtara* of Venice, or eighty-eight pounds; $11\frac{1}{2}$ *ſoldi* equal to 18 *ſoldi correnti*; this tax (*ſenza portata in Villa*) is about 5d. Engliſh the buſhel. Millet, maize, &c. pays 12 *ſoldi* the *ſacco*, of or about $3\frac{1}{2}$d. the Engliſh buſhel. Hay, the *carro* of one hundred *peze*, pays 12 *ſ.* $3\frac{1}{5}$ *den.* or about 6d. a ton Engliſh.

Verona.—Meadows, throughout the Veroneſe State, pay a tax of hay to the cavalry; furniſhing it at a lower price than the common one. The land tax here, 24 *ſ.* for each *campo*, or about 10d. the Engliſh acre; beſides which, there are *entrées* (*dazio*) for municipal charges on all products, amounting to about 2 per cent. of the value; alſo others papable to the State. Hay pays 24 *ſ.* the *carro*: the ſack of wheat, 10 *ſ*: of maize, $1\frac{1}{2}$ *ſ.* There is a moſt miſchievous tax on cattle; a pair of oxen pays half a *zecchin* per annum; cows ſomething leſs; and ſheep alſo pay a certain tax per head.

Vicenza.—Salt is 6 *ſ* the pound; fleſh, 3 *ſ.* *entrée* (*dazio:*) a ſack of wheat, $4\frac{1}{2}$ *ſ.*: of flour, of one hundred and eighty pounds, 3 livres 2 *ſ.*: and every thing that comes

* *Delle Opere del Conte Carli*, tom. i. p. 232.

† Upon the taxes of the Milaneſe, it ſhould in general be noted, that every father with twelve children living, or eleven living and his wife with child of a twelfth, is exempted from all perſonal taxes; and upon all others favoured 45 per cent. that is to ſay, on all royal, provincial, and municipal impoſts. *Delle Opere de S. Conte Carli*, 8vo. tom. i. p. 254.

in

in pays. Land-tax, 2 livres the *campo*: and a poll-tax of two livres a head, on all above ſeven years old.

Padua.—The land-tax, 20*ſ.* the *campo*; and 10*ſ.* or 15*ſ.* for the expences on rivers; but this tax uncertain.

Venice.—No tax on cattle in the Poleſine. The land-tax on all the Terra Firma; arable, 2 livres the *campo*: meadow, 1 livre 10*ſ.*; woods, 10*ſ.* The ſale of meat in the city is a monopoly, no other perſons but thoſe appointed being allowed to ſell. *Entrées* are paid on every thing that comes in; on wine it is heavy. Tobacco is a monopoly, at a heavy price, reſerved by the State throughout all the Venetian territory, producing 50,000 ducats a month, and guarded by the ſame infamous ſeverities, that are found in other deſpotic countries. Salt the ſame. Inheritances, except from a father, pay 5 per cent. on the capital; a woman pays this cruel impoſition, even upon her receipt from a father, or a huſband. Infamous tyranny! The city of Venice pays about one-ſixth of the whole revenue.

Ecclesiastical State.—*Bologna.*—Taxation at Bologna is one of the moſt remarkable circumſtances I met in Italy. I had often read, and had been generally given to underſtand, that the government of the church was the worſt to be found in Italy; what it may be in the Roman State I know not, but in the Bologneſe it is amongſt the lighteſt to be found in Europe. There are four objects of taxation: — 1. The Pope. 2. The municipal government of the city. 3. The ſchools in the univerſity. 4. The banks, &c. of the rivers, againſt inundations. Of all theſe, there is ſome reaſon to believe that the Pope receives the leaſt ſhare. The common land-tax is only 2 *baiocchi* the *tornatura*; this is about 2d. the Engliſh acre. Lands ſubject to inundations, pay 5 *baiocchi* more. Among the impoſts levied in the city, wine only, and a few trifles, belong to his Holineſs. Salt, fiſh, meat, cocoons (for there is a ſmall duty upon them,) and grinding corn, theſe are municipal; and among the heavieſt articles of the cities expence, is the intereſt of about a million ſterling of debt. In general, the revenue of the *dogana*, or cuſtom-houſe, is applied towards ſupporting the lectures in the public ſchools, and the botanical garden. There is a light capitation, which is paid in the country, as well as in the city. Upon the whole the amount of the taxes of every kind is ſo inconſiderable, that the weight is felt by nobody, and was eſteemed to be exceedingly light by every perſon I converſed with.

Tuscany.—*Florence.*—Every circumſtance concerning taxation, in the dominions of the moſt enlightened Prince in Europe, muſt neceſſarily be intereſting. If the reader is at all converſant with the works of the *œconomiſtes*, with which France was ſo deluged ſome years ago, he will know, that when they were refuted in argument, upon the theory of a univerſal land-tax to abſorb all others, they appealed to practice, and cited the example of Tuſcany, in which dominion their plan was executed. I was eager to know the reſult; the detail I ſhall give, imperfect as it is, will ſhew on what ſort of foundations thoſe gentlemen built, when they quitted the fields of ſpeculation and idea. I was not idle in making inquiries; but the Grand Duke has made ſo many changes, no year paſſing without ſome, and all of them wiſe and benevolent, that to attain an accurate knowledge is not ſo eaſy a buſineſs as ſome perſons may be inclined to think. The following particulars I offer, as little more than hints to inſtigate other travellers, whoſe longer reſidence gives them better opportunities, to examine a ſubject of ſo much importance to the bottom.

The eſtimation on which the preſent land-tax is collected is ſo old as 1394; of courſe it can bear no proportion with the value or with the produce of the land; whatever improvements are made, the tax remains the ſame; much of it has been bought off in

payments

payments made by proprietors, who have paid at different periods certain ſums, to be exempted for ever from this tax; a ſingular circumſtance, and which marks no inconſiderable degree of confidence in the government. That part of this tax which is paid to the communities for roads, &c. is not thus redeemable; and, without any breach of faith, the tax has received additions; it amounts to more than one-tenth of the net rent. A capitation from 1½ livre to 4 livres per head (the livre is 8½d. Engliſh). Every body pays this tax in the country, except children under three years of age; and all towns, except Florence, Piſa, Siena, and Leghorn, which are exempted, becauſe they pay *entrées*. Nothing is paid on cattle. Butchers in the country pay a tax of 1 *ſ.* per pound (ſomething under ½d. per pound Engliſh); in a diſtrict of ſeven miles long by four or five broad, the butcher pays 500 *ſcudi* per annum to the prince; as this tax implies a monopoly, it is ſo far a miſchievous one; and even a countryman cannot kill his own hog without paying 5 livres or 6 livres if ſold. Bakers pay none. Cuſtoms on imports, and ſome on exports, are paid at all the ports and frontiers; and the *entrées* at the above-mentioned towns are on moſt kinds of merchandize and objects of conſumption. Houſes pay a *dixme* on their rents. Stamped paper is neceſſary for many tranſactions. The transfer of land and houſes, by ſale or collateral ſucceſſion, pays 7 per cent. and legacies of money and marriage portions the ſame—a very heavy and impolitic tax. There is a *gabelle* upon ſalt, which however the Grand Duke ſunk ſix months ago from 4 to 2 *gras*; he at the ſame time made Empoly the only emporium, but as that occaſioned much expence of carriage, he augmented the land-tax enough to pay the loſs, by ſelling it to the poor only at 2 *gras*; the rich pay the ſame, but with the addition of carriage. Tobacco was alſo a revenue, and with ſalt, paid 1 livre per head on all the population of the Dutchy, or one million. The *entrées* above-mentioned are not inconſiderable; a calf pays 6 livres; a hog, 5 livres per one hundred pounds; grain nothing; flour, 10 *ſoldi* (there are 20 *ſoldi* in 1 livre); beans, 2 *ſ.*; a load of hay, of three thouſand pounds, 4 livres; of ſtraw, under two thouſand pounds, 2 livres. Houſes are alſo ſubjected to an annual tax; Florence pays 22,000 *ſcudi* a-year to it: it may be ſuppoſed to be levied pretty ſtrictly, as the Grand Duke ordered all his palaces, the famous gallery, &c. to be valued, and he pays for them to the communities. What a wiſe and refined policy; and how contrary to the exemptions known in England! When the capitation was increaſed in France, in a bad period, Louis XIV. ordered the Dauphin himſelf, and all the princes of the blood to be rated to it, that the nobility might not claim exemptions. Lotteries, to my great ſurpriſe, I found eſtabliſhed here. The domains of the ſovereign were conſiderable. It was always a part of the policy of Leopold, to ſell all the farms that could be diſpoſed of advantageouſly; he ſold many; but there are yet many not diſpoſed of. I found it a queſtion at Florence, whether this were good policy or not? A gentleman of conſiderable ability contended againſt theſe ſales, judging the poſſeſſion of land to be a good mode of raiſing a public revenue. The opinion I think ill founded; if it be carried to any extent (and if capable of being ſo, there is an end of the queſtion), the loſs by ſuch poſſeſſions muſt be great: every eſtate is ill managed, and unprofitably, and uſually badly cultivated, in proportion to the extent.—And when this evil extends to ſuch immenſe poſſeſſions, as are neceſſary to conſtitute a public revenue, the inquiry is decided in a moment; and it muſt on all hands be agreed, that there cannot be a more expenſive mode of ſupporting the ſovereign.

From the preceding catalogue of taxes, which is very far from being complete, it may eaſily be concluded, that Monſ. de la Lande was not perfectly accurate in ſaying, "*Le projet du gouvernement eſt de réduire toutes les taxes dans la Toſcane à un impôt unique, qui ſe percevra ſur le produit net des terres.*" This is the old aſſertion of the *œconomiſtes*: but if

it be the project of government, it is executed in a manner not at all analogous to such a system; for there is hardly a tax to be met with in Europe, which is not to be found in Tuscany. I was told, however, that the Grand Duke had formed an opinion, that such a scheme would be beneficial if executed; but from his conduct, after a reign o twenty years, it is evident that his good sense convinced him that such a plan, whether good or bad in theory, is absolutely impracticable. He may have made it a subject of conversation; but he was abundantly too prudent to venture on so dangerous, and what would prove so mischievous an experiment.

The Grand Duke gave to all the communities, the power of taxation for roads, bridges, public schools, reparations of public buildings, salaries of school-masters, &c. Among the long list of taxes, however, there are no excises on manufactures, such as leather, paper, &c.

The whole revenue of the Grand Duke may be estimated at one million of *scudi*, (5s. 8d. each,) paid by about a million of souls, spread over a thousand square miles of territory, or 283,333l.: this is the received opinion at Florence; but there are reasons for believing it under the truth, and that, if every kind of revenue whatever were fairly brought to account, it would amount to 400,000l. a year. At this sum the Tuscans must be considered amongst the lightest taxed people in Europe; for they pay but 8s. a head. The people of England pay six times as much.

MODENA.—The common calculation in the Modenese is, that all taxes whatever equal one-fifth of the gross produce of the land; as the duties are various, such calculations must necessarily be liable to a good deal of error. In the *censimento* or *cadastre* of the Dutchy, estates are valued at the half of their real worth, and the tax is laid at 1 per cent. annual payment of their fee simple; this amounts to 6s. in the pound land-tax; but it may be supposed that the real payment does not amount to any thing so enormous as this. It appears by the *censimento*, that in the plain there are sixty-seven thousand three hundred and seventy-eight pieces of land, and seven hundred and thirty-eight thousand eight hundred and nine *biolca*. The total revenue of Modena at present amounts to 300,000 *zecchini*, (142,0col.) 200,000 of which go to the Duke's treasure, and 100,000 for rivers, roads, bridges, communities, &c. Among the taxes, many are heavy, and complained of; beside the land-tax above-mentioned, the general farms amount to 55,000 *zecchini*: all corn must be ground at the Duke's mills, and 3 *pauls* paid for each sack of three hundred pounds, of twelve ounces. There is a *gabelle* on salt; it sells white at 22 *bol.* the pound; black 8 *bol.* Snuff is 1 *paul* the pound. They have stamped paper for many transactions. Every horse pays 20 *bol.*; each ox, 10 *bol.* Sheep and hogs, 4 *bol.*: and if any person be absent from the state for the term of a year, he pays an absentee tax. *Entrées* are paid by every thing that comes into the city; a load of wood, 20 *bol.*; a sack of wheat, 3 *bol.*; a load of hay, 20 *bol.*; of faggots, 20 *bol.* All meat, 4 *bol.* the pound. Wine, 14 livres the measure, of twelve *poids*, each twenty-five pounds, of twelve ounces. Coffee, $\frac{2}{3}$ *paul* per pound. The sale, &c. of land, pays 5 per cent.

PARMA.—The revenues of this dukedom are two-thirds of those of Modena. The land-tax is 50*s.* the *biolca* (about 9d. an acre). The peasants pay a capitation; this varies if they are enrolled or not as soldiers. A man pays 18 livres (each 2½d.) per annum, if not a soldier, but 3½ livres or 4 livres if enrolled. A woman, not the wife of a soldier, 15 livres. These soldiers, or rather militia-men, pay also 24*s.* a month, as an exemption from service. He is enrolled for twenty-five years, after which he has the same advantage. He pays also but half for his salt, 6*s.* only the pound; others 12*s.* A metaver, who is a soldier, pays all sorts of taxes, about 60 livres.

SECT.

SECT. III.—*Of Tithe and Church Lands.*

PIEDMONT.—Throughout this principality tithe is an object of no account. I made inquiries concerning it every where: the greateſt part of the lands pay none; and upon the reſt it is ſo light, as not to amount to more than from a twentieth to a fiftieth of the produce *.

MILANESE.—In the country from Milan to Pavia, no tithe of any kind, but the *curées* are ſupported by foundations. In the village where I made inquiries into the dairy management,—the *curée* has 21 *ſtara* of rice, 12 *ſtara* of rye, 4 *ſtara* of wheat; three hundred pounds of the beſt hay from one large farm; and he has ſome other little ſtipends in nature; the amount ſmall, and never paid as a tithe.

At Mozzata, the tithes, as every where elſe, are ſo low as to be no object; grain pays, but not on all land; it is confined to the lands antiently in culture †, for even the anceſtors of theſe people were much too wiſe, to allow the church to tax them in ſuch a ſpirit, as to take tithes of new improvements. Never did ſuch a meaſure enter their heads or hearts! The titheable lands are ſmall diſtricts; are near to the villages that have been in cultivation many centuries; and in ſome of theſe, tithe is not taken on all ſorts of corn; only on thoſe ſorts antiently cultivated. The variations in this reſpect are many; but but on whatever it is taken, it never exceeds a ſixteenth, uſually from one-ſeventeenth to one-twentieth; and of ſuch as are levied, the whole does not belong to the *curée*, not more perhaps than one-fourth; one-half to the canons of ſome diſtant church, to which the whole probably once belonged; and one-fourth ſold off to ſome lay-lord, with a ſtipulation to repair the church. The variations are ſo great, that no general rule holds; but they are every where ſo light, that no complaints are heard of them.

The church lands ſeized by the late Emperor in the Milaneſe, were of immenſe value. From Pavia to Plaiſance, all was in the hands of the monks; and the Count de Belgioſo has hired thirty-ſix dairy farms of the Emperor, by which he makes a profit of 50,000 livres a year. The revenue that was ſeized, in the city of Milan only, amounted to above 5,000,000 livres; and they ſay in that city, that in the whole Auſtrian monarchy, it amounted to 20,000,000 florins.

At Codogno, and through moſt of the Lodizan, tithe is ſo very inconſiderable, that it is not worth mentioning; the expreſſion of the gentlemen who were my informants.

STATE OF VENICE.—In the diſtrict of Verona, mulberries pay no tithe; wheat one-twelfth in ſome places, in others leſs; maize, millet, &c. from one-fifteenth to one-thirtieth; but if for forage only, they pay none, no more than vetches, chick-peaſe, millet, &c. as it appears by a late memoir printed at Venice ‡. Meadows pay a light tithe, becauſe they are taxed to find hay for the cavalry at an under price. In the diſtrict of Vicenza, tithe varies from the one-tenth to the forty-firſt. About Padua, wheat alone pays the tenth: vines a trifle, at the will of the farmer: mulberries, ſheep, and cows, nothing.

ECCLESIASTICAL STATE.—*Bologna.*—Tithes are ſo low throughout all the Bologneſe, that I could get no ſatisfactory account of the very ſmall payments that are yet

* Tithe in Sardinia is heavy. They pay one-tenth of the corn, and one-ninth of that one tenth for threſhing, and one-fifth of the one-tenth for carriage.—*Riſiorimente della Sardegna*, tom. i. p. 145.

† A remarkable paſſage in Giulini deſerves noting here; under the year 1147, he gives *finalemente ſi prohibiſce a ciaſcheduno eſſigere le decima dai terreni di nuovo coltivati*, tom. v. p. 459.

‡ *Raccolto di Memorie Delle Pubbliche Accademie*, 8vo, 1789, tom. i. p. 197.

made to the church; every one aſſured me that they were next to nothing; but that in the Ferrareſe they are high.

TUSCANY.—In many of the countries of Europe, the ſeizure of eſtates and effects of the jeſuits was a rapacious act, to the profit of the Prince or State; in Tuſcany it was converted to a more uſeful purpoſe. The Grand Duke ſet aſide theſe revenues for forming a fund called the "Eccleſiaſtical Patrimony," under the management of a new tribunal, that ſhould enable him gradually to aboliſh tithes. This great reform, equally beneficial to every claſs of the people, has been in execution for many years: as faſt as the preſent incumbents of the livings die, tithes are aboliſhed for ever; their ſucceſſors enter into poſſeſſion of moderate ſalaries, payable out of thoſe funds, or raiſed by an addition to the land-tax; and thus an impoſt, of all others the moſt miſchievous, is ſpeedily extinguiſhing, and the agriculture of Tuſcany improving in conſequence; proportionably to ſuch extinction of its former burthens. Many monaſteries have been alſo ſuppreſſed, and their revenues applied, in ſome caſes, to the ſame uſe; but this has not been attended with effects equally good: the lands are not equally well cultivated; nor do they yield the ſame revenue as formerly; for the farms of the monks were in the beſt order, adminiſtered by themſelves, and every thing carefully attended to. This was not the caſe, however, with convents of women, who being obliged to employ deputies, their eſtates were not equally well managed.

A propoſition was lately made by the court to ſell all the glebes belonging to the livings, and to add to the ſalaries of the *curés* in lieu of them; but at a public meeting of the Academia di Georgofili, Sig. Paoletti, a *curé* in the neighbourhood of Florence, a practical farmer, and author of ſome excellent treatiſes on the art, made a ſpeech ſo pointedly againſt the ſcheme, fraught with ſo much good ſenſe, and delivered with ſo much eloquence, that the plan was immediately dropped, and reſumed no more; this was equally to the honour of Paoletti and of Leopold. When good ſenſe is on the throne, ſubjects need not fear to ſpeak it.

The lightneſs of the old tithes may be eſtimated by the payment which forty farms at Villamagna yield to the ſame Sig. Paoletti, the *curé*, which is 40 ſcudi (each 5s. 8d.), and this is only for his life, to his ſucceſſor nothing in this kind will be paid. Having mentioned Sig. Paoletti, and much to his honour, I muſt give another anecdote of him, not leſs to his credit; after his Sunday's ſermon, it has long been his practice to offer to his audience ſome inſtructions in agriculture, which they are at liberty to liſten to or abſent themſelves, as they pleaſe. For this practice, which deſerved every commendation, his archbiſhop reproved him. He replied, that he neglected no duty by offering ſuch inſtruction, and his congregation could not ſuffer, but might profit, and innocently too, by what they heard. A ſovereign that receives ſo much merited praiſe as the great Leopold, can well afford to hear of his faults; firſt, why did he not reprove this prelate for his conduct, and by ſo doing encourage an attention to agriculture in the clergy? Secondly, why did he not reward a good farmer, and worthy prieſt, and excellent writer, with ſomething better than this little rectory? Talents and merit in an inferior ſituation, which might be better exerted, are a reproach, not to the poſſeſſor, but to the prince.

The Grand Duke took the adminiſtration of the lands belonging to hoſpitals and the poor, into his own hands alſo; but the effect of this has not, in the opinion of ſome perſons, been equally beneficial; the poor remain as they were, but the revenue gone; this, in the dioceſe of Florence only, amounted, it is ſaid, to three or four millions of *ſcudi*: if this be true, the miſchief attending ſuch revenues muſt be enormous; and taking them away, provided the *really uſeful* hoſpitals be ſupported, which is the caſe, muſt be beneficial. Too many and great eſtabliſhments of this nature nurſe up idleneſs, and create,

by

by dependency and expectation, the evils they are deſigned to cure. Poverty always abounds in proportion to ſuch funds; ſo that if the fund were doubled, the miſery it is meant to prevent would be doubled alſo. No poor in the world are found at their eaſe by means of hoſpitals and gratuitous charities; it is an induſtry ſo ſteady and regular as to preclude all other dependence, that can alone place them in ſuch a ſituation, as I have endeavoured to ſhew in my remarks on France.

The patrimony of almoſt all the pariſhes in Tuſcany, conſiſts in lands aſſigned them: the rector is adminiſtrator and guardian of them; and both by law and his oath on induction, he is ſtrictly obliged to maintain and ſupport them, and alſo to manure them, and to increaſe the produce *.

Dutchy of Modena.—No tithe here; a voluntary gift only to the *ſub-curé*. The eccleſiaſtical lands have been largely ſeized here, as well as every where elſe in Italy; but the Duke gave them to the towns, to aſſiſt them in the expence of the municipal adminiſtration.

Dutchy of Parma.—No real tithe; the payments in lieu very ſmall, and not proportioned to the crop; a farm pays a ſtajo of wheat (about eighty-eight pounds Engliſh), two parcels of raiſins, and twenty faggots, between the two *curées*.

Upon this detail of the tithe paid in Lombardy, &c. one obſervation ſtrongly impreſſes itſelf, that the patrimony of the church is, under every government in Italy, conſidered as the property of the State, and ſeized or aſſigned accordingly. It highly merits attention, that in the free countries of Holland and Switzerland, (exempt at leaſt from the deſpotiſm of a ſingle perſon,) the ſame principal has been adopted; with what reaſon therefore can the firſt National Aſſembly of France be reproached as guilty of a ſingular outrage, for doing that which every neighbour they have (England and Spain only excepted) had done before them; and which may poſſibly, in a better mode, be followed in every country in Europe? They have in Italy rid themſelves of tithes, though not half, perhaps not upon an average a third of the burthen they amount to in England, where their levy has been carried to a much greater height. If the legiſlature of that kingdom would give a due encouragement, they will remove ſuch burthens gradually, and with wiſdom. All I converſed with in Italy on the ſubject of tithes, expreſſed amazement at the tithes we are ſubject to, and ſcarcely believed that there was a people left in Europe who paid ſo much, obſerving that nothing like it was to be found even in Spain itſelf.

Sect. IV.—*Of Manufactures and Commerce.*

Piedmont.—Two-thirds of the rice raiſed is exported: I met carts loaded with ſilk and rice on the great road to France; and demanding afterwards concerning this trade, I was informed that the coſt of carriage was 30*ſ.* per rubbio, to Lyons or Geneva, and 3 livres to Paris. The following are the principal exports:

	Livres.
Unwrought ſilk,	17,000,000
Damaſk, &c.	500,000
Rice,	3,500,000
Hemp,	1,500,000
Cattle,	2,000,000
	24,500,000

* *Paoletti Penſieri ſopra l'Agricoltura*, 8vo. Firenze, 1789. p. 50. 2d edit.

Oil

Oil and wine from Nice, walnut-oil, cobalt, lead, and copper ore, add ſomething. France commonly takes 10,000,000 livres in ſilk, and England 5,000,000 livres of the fineſt ſort. The balance of trade is generally ſuppoſed to be about 500,000 livres againſt Piedmont; but all ſuppoſitions of this ſort are very conjectural; ſuch a country could not long continue to pay ſuch a balance, and conſequently there cannot be any ſuch. By another account, wheat exported is 200,000 ſacks at 5 *eymena;* 5000 ſacks of rice, at 3 *eymena;* hemp, 5000 quintals; and 10,000 head of oxen.

Turin.—The Engliſh woollen manufacturers having ſworn at the bar of the Houſe of Lords, that the French camblets made of Engliſh wool, rivalled the Engliſh camblets in the Italian markets, and even underſold them, I had previouſly determined to make inquiries into the truth of this aſſertion. I was at Turin introduced to Sig. Vinatier, a conſiderable ſhopkeeper, who ſold both. His account of the French and Engliſh camblets was this; that the Engliſh are much better executed, better wrought, and more beautiful, but that the French are ſtrongeſt. I deſired to know which were the cheapeſt. The Engliſh he ſaid, being much the narrower, it was a matter of calculation, but he ſuppoſed the conſumers thought the Engliſh cheapeſt, as where he ſold one French, he ſold at leaſt twenty five Engliſh. He ſhewed me various pieces of both, and ſaid, that the above circumſtances were applicable both to ſtuffs mixed of wool and ſilk, and alſo thoſe of wool only. I aſked him then concerning cloths: he ſaid, the Engliſh ordinary cloths were much better than the French, but that the French fine cloths were better than the Engliſh. Theſe inquiries brought me acquainted with an Italian dealer, or merchant, as he is called, in hardware, who informed me, that he was at Birmingham in 1786 and 1789, and that he found a ſenſible diminution of price; and that the prices of Engliſh hardware have fallen for ſome years paſt; and that, for theſe laſt three or four years, the trade in them to Italy has increaſed conſiderably. He has not only bought, but examined with care, the fine works in ſteel at Paris, but they are not equal to the Engliſh; that the French have not the art of hardening their ſteel, or, if hardened, of not working it; for the Engliſh goods are much harder and better poliſhed, conſequently are not equally ſubject to ruſt.

MILANESE.—In the fifteenth century, the trade of this country was conſiderable. In 1423, the territory of Milan paid to the Venetians:

	Ducats.
Milan,	900,000
Monza,	52,000
Como,	104,000
Aleſſandria,	52,000
Tortona and Novara,	104,000
Pavia,	104,000
Cremona,	104,000
Bergamo,	78,000
Parma,	104,400
Piacenza,	52,000
	1,054,400

And

And they ſent to Venice, at the ſame time, cloths to the following amount:

	Cloths.		Ducats.
Aleſſandria, Tortona, and Novara, at 15 ducats,	6,000	—	90,000
Pavia, at 15 ducats,	3,000	—	45,000
Milan, at 30 ditto,	4,000	—	120,000
Como, at 15 ditto,	12,000	—	180,000
Monza, at 15 ditto,	6,000	—	90,000
Breſcia, at 15 ditto,	5,000	—	75,000
Bergamo, at 7 ditto,	10,000	—	70,000
Cremona, at 40¾ ditto,	40,000	—	170,000
Parma, at 15 ditto,	4,000	—	60,000
	90,000		900,000
Duties and warehouſes,			200,000
Canvas,			100,000

And at the ſame time the Milaneſe took from Venice annually:

Cotton raw, 5000 *miliari*,	250,000 ducats.
Cotton ſpun,	30,000
Wool of Catalonia, 4000 *miliari*,	120,000
French wool,	120,000
Gold and ſilk fabrics,	250,000
Pepper,	300,000
Soap,	250,000
Cinnamon,	64,000
Ginger,	80,000
Slaves,	30,000
Sugar,	95,000
Materials for embroidery,	30,000
Dying woods,	120,000
Indigo, &c.	50,000 *

The produce of ſilk amounts to 9,000,000 livres; nineteen-twentieths of which, at leaſt, are exported.

Count Verri, in his *Storia di Milano*, mentions that the Milaneſe, only ſixty miles by fifty, feeds 1,130,000 inhabitants; and exports to the amount of 1,350,000 *zecchini* †, viz. ſilk, 1,000,000; cheeſe and flax, more than 200,000; corn, 150,000. (the *zecchini* being 9s. 6d. the ſum of 1,350,000 equals 641,200l.) But this is changed much; for the export of cheeſe alone is calculated now at 9,200,000 livres, which is above 306,000l. ſterling.

Bergamo.—The woollen manufacture at this place is of great antiquity, and it is yet conſiderable. Its trade in ſilk is great; they buy from Crema, Monti, Brianza, Ghiara d'Adda, and in general the confines of the Milaneſe; this has given their ſilk trade a greater reputation than it deſerves, for their commerce is more extenſive than their product. They have been known to export ſilk to the amount of near 300,000l. ſterling a year. Here alſo is a fabric of iron and ſteel, of ſome conſideration in Italy; but none of theſe objects are in a ſtile to be intereſting to thoſe who have been at all conver-

* *Giulini*, vol. x[illegible]

† *Verri*, tom. i. p. 236.

ſant

ſant with the fabrics of England. If however the manufactures of Bergamo are compared with thoſe of the Milaneſe, they will be found conſiderable.

Breſcia.—This is a very buſy place; the city and the vicinity for ſome miles abound with many fabrics, particularly of fire-arms, cutlery, and other works of iron. They have many ſilk and oil-mills, and ſome paper fabrics that ſucceed well. But their commerce of all ſorts has declined ſo much, as not to be compared at preſent to what it has been in former times.

Verona.—Here is a woollen fabric that ſtill maintains ſome little ground, though the declenſion it has ſuffered is very great. I was aſſured, that twenty thouſand manufacturers were once found in a ſingle ſtreet; this I ſuppoſe may be an exaggeration, but it at leaſt marks that it was once very great; now there are not one thouſand in the whole city; in the time of its proſperity they uſed chiefly their own wool, at preſent it is imported.

In the Veroneſe, they make one million of pounds of ſilk, of twelve ounces, and rice nearly to as great an amount.

STATE OF VENICE.—*Verona.*—Many years paſt the only great import of camblets was from Saxony, but after the war of 1758, the Engliſh ones eſtabliſhed themſelves, and there is now no compariſon between the quantity of Engliſh and French; of the latter very few, but the import of the former is conſiderable.

Vicenza.—They ſell nine pieces of Engliſh camblets to one of French. A woollen manufacture was eſtabliſhed here three years ago, under the direction of Thomas Montfort, an Engliſhman. It works up their own wool, and alſo Spaniſh. Spinning a pound of fine wool 50*ſ.* and the women earn 15*ſ.* a day; weavers 2 livres. Count Vicentino has eſtabliſhed a fabric of earthen ware with a capital of 9000 ducats; Mr. Wedgwood's forms (originally however from Italy) are imitated throughout. A good plate, plain, 12*ſ.*; ewer and baſon 12 livres; ſmall tea cup and ſaucer, quite plain 15*ſ.*; teapot 4 livres; vaſe, eighteen inches high, with a feſtoon and openings for flowers, 60 livers. It meets with no great ſucceſs, and no encouragement from the government.

Venice.—In the fifteenth century Venice employed three thouſand three hundred and forty-five ſhips, great and ſmall, and forty-three thouſand ſailors *. The chief export at preſent is ſilk; the ſecond, corn of all ſorts; the third, raiſins, currants, and wine. Glaſs is yet a manufacture of ſome conſequence, though greatly fallen, even of late years. Tuyan for beads is, however, yet unrivalled. The glaſs of Bohemia underſells from the great cheapneſs of wood, and poſſibly from that of proviſions, (my informant ſpeaks,) not only the glaſs of Venice, but that of Carniola alſo. The chief export from Venice of fabrics, is to the Levant; velvets and ſilks go there to ſome amount. The trade of the whole Venetian territory does not employ above two hundred and fifty ſhips of national bottoms.

ECCLESIASTICAL STATE.—*Bologna.*—All the ſilk of the Bologneſe is here made into crape and gauze; the crapes are, perhaps, the fineſt in the world, price conſidered. The gauzes alſo are very beautiful: they meaſure by the *braccio* of forty inches; they ſell at 26 to 36 *baiocchi* the *braccio* (10 *baiocchi* equal 6d. Engliſh). White handkerchiefs are alſo made for 7 livres each. Crapes and gauzes employ ſeven or eight thouſand people.

TUSCANY.—*Florence.*—The woollen manufacture was amongſt the greateſt reſources of the Florentines in the time of their republic.

* *Ragionamente ſul Commercio, &c. della Toſcana*, 8vo. 1781, p. 21.—*Marino Sanudo tra gli Scrittori Italici del Muratori*, tom. ii.—*Conte Carli delle Monete*, tom. iii. diſ. 4.—*Mehegan, Tableau de l'Hiſt. Moder.* tom. ii. epog. 7.

In 1239 the friars umiliate came to Florence to improve the manufactory of woollen cloth. They made the fineſt cloths of the age; the beſt, of the wool of Spain and Portugal; the ſeconds, of that of England, France, Majorca, Minorca, Sardinia, Barbary, Apulia, Romana, and Tuſcany *. In 1336 there were at Florence more than two hundred ſhops, in which woollens were manufactured, which made from ſeventy to eighty thouſand pieces of cloth yearly, of the value of 1,200,000 *zecchini*; of which the third part remained in the country for labour; and employed more than thirty thouſand ſouls; and thirty years before that the number was much greater, even to one hundred thouſand pieces, but coarſer, and of only half the value, becauſe they did not receive, nor know how to work the wools of England. In 1460 they were augmented to two hundred and ſeventy-three, but the quality and quantity unknown †. From 1407 to 1485 was the period of its greateſt proſperity. In 1450 Coſmo of Medicis was the greateſt merchant in Europe. From the year 1365 to 1406 the Republic of Florence, in wars only, expended 11,500,000 *zecchini* ‡.

I was aſſured at Florence, but I know not the authority, that 1*ſ.* a week, on the wages of the woollen manufactures only, built the cathedral; and that at a ſingle fair, in the time of the Republic, woollen goods to the amount of 12,000,000 of crowns have been ſold.

Giuliano and Lorenzo de Medici ſent into England Florentine manufacturers of wool, to exerciſe their trade, for the account of thoſe princes to take advantage of the cheapneſs of wool on the ſpot; from which circumſtance the Florentine writer infers, that the Engliſh thus gained the art of making cloth §.

Theſe particulars, it muſt be confeſſed, are curious, but I muſt draw one concluſion from them, which will militate conſiderably with the ideas of thoſe perſons, who inſiſt that the only way of encouraging agriculture is to eſtabliſh great manufactures. Here were, for three centuries, ſome of the greateſt fabrics, perhaps the greateſt in Europe; and Piſa flouriſhed equally; and yet the eſtabliſhment and the ſucceſs of a vaſt commerce, which gave the city immenſe riches, the ſigns of which are to be met with at this day in every part of it, had ſo little effect on the agriculture of Tuſcany, that no perſon ſkilled in huſbandry can admit it to be well cultivated, and yet the improvements in the laſt twenty years are, I am aſſured, very great. Here then is a ſtriking proof, that the prodigious trade of the Tuſcan towns had little or no effect in ſecuring a flouriſhing agriculture to the country. Theſe great political queſtions are not to be decided by eternal reaſonings—it is by recurring to facts alone that ſatisfaction can be gained. No wonder that the rich deep ſoils of Lombardy and Flanders have been well applied; but the more ungrateful and ſteril hills of Tuſcany (at leaſt what I have ſeen of them) wild and unimproved.

There is yet a woollen manufacture of ſome conſideration, and they make fine cloths of Vigonia wool; alſo hats, and various fabrics of ſilk.

The export of woollens from Tuſcany in 1757, was one hundred and twenty thouſand pounds; and in 1762, it was one hundred and eighty thouſand pounds ‖.

Among the ſilk manufactures, here are ſome good, and pretty ſatins, 18 *pauls* (the paul 5½d.) the *braccio* (about two feet Engliſh), the width one *braccio* four inches.

The ſilk ſpun in Tuſcany in ten years, from 1760 to 1769 incluſive, amounts to 1,676,745 pounds; or per annum 167,674; and in the firſt ſum is comprized two hun-

* *Ragionamente Sopra Toſcana*, p. 39.
† *Ib.* p. 30, from Giovanni Villani, Franceſco Balducci, Giovanni da Uzzano Benedetto Dei.
‡ *Criſtofano Landino Apologia di Dante.* § *Ragionamente Sopra Toſcana*, p. 61. ‖ *Ib.* p. 183.

dred and ſixty-eight thouſand nine hundred and ſeventy-nine pounds of cocoons, bought of foreigners *. The ſilk manufacture amounts to a million of crowns (7 livres 10 *ſ.* of Tuſcany †). Of oil the export is about 100,000 *barrils*. The year following the edict of the free commerce of oil and grain, the export amounted to 600,000 *ſcudi* ‡. Next to oil, hogs are the greateſt export, to the amount of from twenty to thirty thouſand in a year.

The average of the quantity of ſilk made in Tuſcany, and regiſtered in the tribunal of Florence, from 1769 to 1778, was one hundred and ſixty-five thouſand one hundred and ſixty-eight pounds; and the import of foreign ſilk, forty-eight thouſand four hundred and ſeventy pounds; together, two hundred and thirteen thouſand ſix hundred and forty-nine pounds yearly §.

MODENA.—In 1771, the following were the exports of the Modeneſe:

	Livres.
Brandy 50,000 *poids*,	593,280
Wine, 150,000 ditto,	428,222
Oxen, 5,232 head,	1,569,600
Cows, 3,068 ditto,	613,400
Calves, one year, 500 ditto,	69,150
Wethers and goats, 23,500 ditto,	141,048
Hogs, 11,580 ditto,	347,280
Pigs, 21,900 ditto,	329,145
Linen, hemp, ſacks, &c. 1,800,000 *braccio*,	1,442,327
Hogs ſalted, 1,900 poids,	24,479
Poultry,	24,342
Hats of ſtraw and chip,	145,308
Ditto of woollen,	23,205
Groſs fabrics of wool,	83,362
Butter,	106,240
Hemp, ſpun or prepared, 13,900 *poids*,	348,000
Wax,	74,400
Silk, 77,650 lb.	3,897,312
Honey,	15,350
Cheeſe,	98,556
Cheſnuts,	17,440
Fruit,	81,320
	10,472,766

All theſe are by the regiſters of the farms; the contraband is to be added.—Exportation is now greater than in 1771.

PARMA.—The firſt trade and export of the country is ſilk; the next cattle and hogs.

There is but one concluſion to be drawn from this detail of the commerce of Lombardy, namely, that eighteen-twentieths of it conſiſt in the export of the produce of agriculture, and therefore ought rather to be eſteemed a branch of that art, than of commerce, according to modern ideas; and it is equally worthy of notice, that thus

* *Penſieri Ap. Apol.* p. 56. † *Ib* p. 57. ‡ *Ib.* p. 59.
§ *Ragionamente Sopra Toſcano*, p. 161.

ſubſiſting

ſubſiſting by agriculture, and importing manufactures, theſe countries muſt be ranked among the moſt flouriſhing in the world, abounding with large and magnificent towns, decorated in a manner that ſets all compariſon at defiance; the country every where cut by canals of navigation or irrigation; many of the roads ſplendid; an immenſe population; and ſuch public revenues, that if Italy were united under one head, ſhe would be claſſed among the firſt powers in Europe.

When it is conſidered that all this has been effected generally under governments not the beſt in Europe; when we farther reflect, that England has for a century enjoyed the beſt government that exiſts, we ſhall be forced to confeſs, perhaps with aſtoniſhment, that Great Britain has not made conſiderable advances in agriculture, and in the cultivation of her territory. The waſtes of the three kingdoms are enormous, and far exceeding in proportional extent all that are to be found in Italy; while, of our cultivated diſtricts, there are but a few provinces remarkable for their improvements. Whoever has viewed Italy with any degree of attention muſt admit, that if a proportion of her territory, containing as many people as the three Britiſh kingdoms, had for a century enjoyed as free a government, giving attention to what has been a principal object, viz. agriculture, inſtead of trade and manufacture, they would at this time have made almoſt every acre of their country a fertile garden; and would have been in every reſpect a greater, richer, and more flouriſhing people than we can poſſibly pretend to be. What they have done under their preſent governments juſtifies this aſſertion: we, bleſſed with liberty, have little to exhibit of ſuperiority.

What a waſte of time to have ſquandered a century of freedom, and laviſhed a thouſand millions ſterling of public money *, in queſtions of commerce! He who conſiders the rich inheritance of a hundred years of liberty, and the magnitude of thoſe national improvements, which ſuch immenſe ſums would have effected, will be inclined to do more than queſtion the propriety of the political ſyſtem which has been adopted by the legiſlature of this kingdom, that in the boſom of freedom, and commanding ſuch ſums, has not, in the agriculture of any part of her dominions, any thing to preſent which marks ſuch expence, or ſuch exertion, as the irrigation of Piedmont and the Milaneſe.

SECT. V.—*Of Population.*

MILANESE.—In all Auſtrian Lombardy there are 1,300,000 ſouls.

In 1748 the population was about 800,000; and in 1771 it was 1,130,000. The Milaneſe contains 3000 ſquare miles †. In 1732 there were 800,000 *pertiche* uncultivated; in 1767 only 208,000. In a ſquare mile, of ſixty to a degree, there are in the Milaneſe, 354 ſouls. There are in the Dutchy 11,385,121 *pertiche*, at 4868 *pertiche* in a ſquare mile; and there are in the ſtate, excluſive of roads, lakes, rivers, &c. 2338 ſquare miles ‡, and 377 perſons per ſquare mile, which is certainly very conſiderable; and that my readers may have a clearer idea of this degree of population, I ſhall remark, that to equal it, England ſhould contain 27,636,362 ſouls §.

VENETIAN STATE.—*Padouan.*—In the whole diſtrict of Padouan there were, in 1760, 240,336 ſouls: in 1781, there were 288,300; increaſe 47,914. There is probably no corner of Europe, barbarous Turkey alone excepted, in which the people do

* *Sir John Sinclair's Hiſtory of the Public Revenue*, vol. ii. p. 98.
† *Delle Opere del S. Conte Carli*, 1784, tom. i. p. 132. ‡ *Ib.* p. 319.
§ At 73,306 ſquare miles each of 640 acres.

not increaſe conſiderably; we ought not therefore in England to take too much credit for that rapid augmentation which we experience. It is found under the worſt governments as well as under the beſt, but not equally.

Venice.—The population of the whole territory 2,500,000: of the city, between 143 and 149,000, the Zuedecca included.

In Friuli, in 1581, there were 196,541; and in the city of Udine 14,579. In 1755, in Friuli 342,158, and in Udine 14,729 *. The population of all the States of Venice, by another authority, is made 2,830,000; that is 600,000 in Bergamo, Breſcia, &c.: in the reſt of the Terra Firma 1,860,000: in Dalmatia and Albania 250,000: in the Greek iſlands 120,000 †. In the time of Gallo, who died in 1570, there were ſaid to be in the Breſcian about 700,000 ſouls; in 1764, there were 310,388 ‡.

TUSCANY.—The progreſſive population of Florence is thus ſhewn, by Sig. Laſtri:

1470 §,	40,323
1622,	76,023
1660,	56,671
1738,	77,835
1767,	78,635 ‖

The total population of the Dukedom, is calculated at about 1,000,000 **. Two centuries ago, the population of the fields in the mountains, and on the ſea-coaſt, was little leſs than double what it is at preſent. And there is ſaid to have been the ſame proportion in the cultivation and cattle ††.

MODENA.—*State of the Dutchy in* 1781:

Eccleſiaſtics,	8,306
Infants, under fourteen years of age,	50,291
Girls, ditto,	49,516
Men,	115,464
Women,	124,822
Total	348,399

Marriages, 2,901; births, 12,930; deaths, 10,933. Multiplying the births therefore by 27, gives nearly the population; or the deaths by 41.—Of this total, the following are in the mountain diſtricts:

Carrara,	8,865
Maſſa,	11,070
Garfagnana,	22,242
Carry over	42,177

Gemelli, vol. ii. p. 16. † *Della Piu' utile Ripartizione de' Terreni, &c. San Martino*, 4to. p. 13.
‡ *Gallo Vinti Giornata*, Breſcia, 1773, p. 413. § *Decima*, tom. i. p. 232.
‖ *Ricerche ſull' Antica e Moderna Popolazione della Citta di Firenze*, 4to. 1775, p. 121. Sig. Paoletti is a ſenſible writer, and a good farmer, but he is of Dr. Price's ſchool,—"L'antica popolazione della Toſcana era certamente di gran lunga ſuperiore a quella de' noſtri tempi;"—from Boccacio, he makes 100,000 to die in Florence of the plague in 1348; yet, in little more than a century after, there was not half the number in the city; he admits, however, that this is *eſagerato*. *Penſieri Sopra l' Agricoltura*, p. 18.
** *Ivore. Mezzi Paolitti*, p. 58.
†† *Diſſertazione ſulla la Moltiplicazione del Beſtiame Toſcano.* Andreucci, 8vo. 1773, p. 14.

Parano,

	Brought forward,	42,177
Varano,		629
Caſtel Nuovo,		14,576
Frignano,		19,526
Monteſiorino,		15,721
Monteſe,		19,694
	Total	112,323
The reſt in the plain.		

PIEDMONT.—Subjects in the King of Sardinia's territories, 3,000,000. In Savoy, 400,000. In Sardinia, 450,000. In Turin, in 1765, 78,807. In 1785, it was 89,185. In 1785, births 3394; deaths 3537.

Of the Poor.

MILANESE.—*Milan.*—Charitable foundations, in the city only, amount to 3,000,000 livres (87,500l ſterling). In the great hoſpital there are commonly from twelve to fifteen hundred ſick: the effect is found to be exceedingly miſchievous, for there are many that will not work, depending on theſe eſtabliſhments.

Mozzata.—The labourers here work in ſummer thirteen hours. Breakfaſt one hour, dinner two hours, merenda one hour, ſupper one hour, ſleep ſix hours. They are not in a good ſituation. I was not contented to take the general deſcription, but went early in a morning with the Marquis Viſconti and Sig. Amoretti into ſeveral cabins, to ſee and converſe with them. In this village they are all little farmers; I aſked if there were a family in the pariſh without a cow, and was anſwered expreſsly there was not one, for all have land. The pooreſt we ſaw had two cows and twenty *pertiche;* for which ſpace he paid five *moggio* of grain, one-third wheat, one-third rye, and one-third maize. Another for one hundred and forty *pertiche* paid 35 *moggio*, in thirds alſo. The poor never drink any thing but water, and are well contented if they can manage always to have bread or polenta; on Sunday they make a ſoup into which goes perhaps, but not always, a little lard; their children would not be reared if it were not for the cow. They are miſerably clad, have in general no ſhoes or ſtockings, even in this rainy ſeaſon of the year, when their feet are never dry; the other parts of their dreſs very bad. Their furniture but ordinary, and looks much worſe from the hideous darkneſs from ſmoke that reigns throughout, yet every cabin has a chimney. They have tolerable kettles, and a little pewter, but the general aſpect miſerable. Fuel, in a country that has neither foreſts nor coal-pits, muſt be a matter of difficulty, though not in the mountains. They were heating their kettles with the ears of maize, with ſome heath and broom. In the cold weather, during winter, they always live in the ſtable with their cattle for warmth, till midnight or bed time. For day-labour they are paid 10*ſ.* a day in winter, and 12*ſ.* in ſummer. For a houſe of two rooms, one over the other, the farmer of 20 *pertiche* pays 24 livres a year; that is to ſay, he works ſo much out with his landlord, keeping the account, as in Ireland, with a tally, a ſplit ſtick notched. They are not, upon the whole, in a ſituation that would allow any to approve of the ſyſtem of the poor being occupiers of land; and are apparently in much more uneaſy circumſtances, than the day labourers in the rich watered plain, where all the land is in the hands of the great dairy farmers. I drew the ſame concluſion from the ſtate of the poor in France; theſe in the Milaneſe ſtrongly confirm

the doctrine, and unite in forming a perfect contraſt with the ſituation of the poor in England, without land, but with great comforts.

STATE OF VENICE.—The people appear in the diſtricts of Bergamo, Breſcia, Verona, and Vicenza, to be in better circumſtances than in the Padouan. And from thence to Venice there are ſtill greater appearances of poverty: many very poor cottages, with the ſmoke iſſuing from holes in the walls.

Villamagna.—The peaſantry, a term which in all countries where the landlord is paid by a ſhare of the produce, and not a money rent, includes the farmers, who are conſequently poor, live here better than in diſtricts more diſtant from the capital; they eat fleſh once a week; the common beverage is the ſecond maſh, or wort of the wine; eat wheaten-bread, and are cloathed pretty well.

SECT. VI.—*Of Prohibitions.*

PIEDMONT.—The exportation of the cocoons of ſilk is prohibited; and the effect highly merits the attention of the politician who would be well informed, from practice, of the principles of political œconomy. It is a periſhable commodity, and therefore it is not at all likely that if the trade were free, the quantity ſent out would be any thing conſiderable; yet, ſuch is the pernicious effect of every ſpecies of monopoly upon the ſale of the earth's products, that this prohibition ſinks the price 30 per cent. While the cocoons ſell in Piedmont at 24 livres the *rubbio*, they are ſmuggled to the Genoeſe at 30 livres; which export takes place in conſequence of the monopoly having ſunk the price. The object of the law is to preſerve to the ſilk-mills the profit of converting the ſilk to organzine; and for this object, ſo paltry on compariſon with the miſchief flowing from it, the land-owners are cheated in the price of their ſilk 30 per cent.; the State gains nothing; the country gains nothing; for not a ſingle pound would be exported if the trade were free, as the motive for the export would then ceaſe, by the price riſing: the only poſſible effect is that of taking 30 per cent. on all the ſilk produced out of the pockets of the grower, and putting it into thoſe of the manufacturer. A real and unequivocal infamy, which reflects a ſcandal on the government, for its ignorance in miſtaking the means of effecting its deſign, and for its injuſtice in fleecing one claſs of men for the profit of another. I demanded why the Piedmonteſe merchants could not give as good a price as the Genoeſe. "*They certainly could give as good a price, but as they know they have the monopoly, and the ſeller no reſource in an export, they will have it at their own price; and if we do not give them this profit of* 30 *per cent. we cannot ſell it at all.*" What an exact tranſcript of the wool laws in England!

Another prohibition here not equally miſchievous, but equally contrary to juſt principles, is that of keeeping ſheep in ſummer any where in or near the plain of Piedmont; it is not eaſy to underſtand, whether the object of this law is that the ſheep at that ſeaſon *ſhall* be kept in the mountains, or that they ſhall *not* be kept in the plain. In winter they are allowed every where. The ſhepherds buy the laſt growth of the meadows at 5 livres or 6 livres per *giornata* for them, and pay for ſuch hay, as may be wanted in froſt or ſnow.

Corn from Sardinia is not allowed to be exported, but when the quantity is large, and then paying a heavy duty, yet this is the only commodity of the iſland; and the execrable policy that governs it has rendered it one of the moſt wretched deſerts that is to be found in Europe *. On account of this duty they pay no land-tax †. No wonder that the authors of ſuch a policy want to ſell their inheritance!

* *Riſioramente della Sardegna*, tom. i. p. 3. † *Ibid.* p. 147.

MILANESE.—The export of cocoons are here alſo prohibited; and as it is rather more ſeverely ſo than in Piedmont, the price is of courſe ſomething lower. The duty on the export of ſilk is 7½ *ſ.* per pound.

Keeping ſheep in the vale of the Milaneſe, every where prohibited by government, from the notion that their bite is venomous to rich meadows. The ſame in the Veroneſe; and there is a deſertation in the Verona Memoirs in favour of them.

STATE OF VENICE.—*Breſcia.*—The cultivation of the mountains is every where prohibited in this republic, leſt the turbid waters falling into the Lagunes, ſhould fill up thoſe channels, and unite Venice with the Terra Firma. Mr. Profeſſor Symonds has remarked the ill effects of cutting woods on the mountains, relative to the miſchief which rivers in that caſe do to the plains; it is ſuſpected in Italy, that there are other reaſons alſo; and they have obſerved in the territory of Aqui, in Piedmont, that hail has done more miſchief ſince the woods have been cut down in certain diſtricts of the mountains, between the Genoeſe territory and Monteferat *.

Verona.—The export of wheat is prohibited when the price exceeds 24 livres the ſack, of eleven *peſi*, of twenty-five pound; eleven *peſi* are two hundred and five pound Engliſh; and therefore 24 livres equals 26s. 6d. per quarter Engliſh of four hundred and fifty-ſix pounds; apparently a regulation that is meant as an abſolute prohibition. The export of maize alſo prohibited, when it reaches a certain price, proportioned to that of wheat. The export of cocoons and unſpun ſilk prohibited.

Vicenza and Padoua.—The export of cocoons prohibited.

Venice.—The export of wool, from the Venetian territory, has been always prohibited. The export of wheat is prohibited, when the price arrives at 22 livres the *ſaccho*; but ſo much depends on the magiſtrate, that there is no certainty, and conſequently the trade crippled. The *ſtajo*, or *ſtaro Veneziano* of wheat, is one hundred and thirty-three pounds *groſſo*; four *ſtari* one *mozzo*. The ſack of flour is two hundred and four pounds to two hundred and ten pounds †. The ſack of wheat one hundred and thirty-two pounds *groſſo* ‡. As the Venetian pound is about one-twentieth heavier than the Engliſh, 22 livres the ſack about equals, not exactly, 36s. the Engliſh quarter, but the ratio of the price is of little conſequence, in laws, the execution of which depends on the will of the magiſtrate §. Another prohibition, which marks the ſhort and fallacious views of this government, on every object but that of their own power, is in the duration of leaſes; no perſon is allowed to give a longer one than for three years; which is in fact to declare by law that no renter ſhall cultivate his farm well.

ECCLESIASTICAL STATE.—*Bologna.*—The government of this country, in reſpect to taxes, is the mildeſt perhaps in Europe; but it loſes much of its merit by many prohibitions and reſtrictions, which have taken place more or leſs throughout Italy. Silk cannot be ſold in the country; it muſt all be brought to the city. All wood, within eight miles of the ſame place, is a ſimilar monopoly; it can be carried no where elſe. The export of corn is always prohibited, and the regulation ſtrictly adhered to; and it may be remarked that the price is never low; the natural, and probably the univerſal effect of ſuch a policy, muſt be a high price inſtead of that low one, which is the object of the State.

TUSCANY.—In the ſtates I have hitherto mentioned, to name prohibitions is to exemplify their miſchief in the conduct of all the governments, through whoſe territories

* *Memoire della Soc. Agraria*, vol. iv. p. 3.
† *Tratto della Pratica di Geometria Perini*, 4to. Verona, 1751.
‡ *De la Lande's Voyage en Italie*, tom. vii. p. 81.
§ On this point ſee Mr. Profeſſor Symonds' excellent paper in the *Annals of Agriculture*.

I have

I have yet paſſed; but in Tuſcany the taſk is more agreeable—to give an account of prohibitions there, is to ſhew the benefit of their reverſal, and of that ſyſtem of freedom, which the late beneficent ſovereign introduced.

In 1775 an unlimited freedom in the export and import of corn was eſtabliſhed. The effect of this freedom in the commerce of corn has been very great; in the firſt place, the price of corn has riſen conſiderably, and has never for a moment been low; the riſe has been ſteady; famines and any great ſcarcity have been abſolutely avoided, but the augmentation of price on an average has been great. I was aſſured, on very reſpectable authority, that landlords, upon a medium of the territory, have doubled their incomes, which is a prodigious increaſe. This vaſt effect has not flowed immediately from the riſe in the price of corn, but partly from an increaſed cultivation in conſequence of that price, and which would never have taken place without it. On the other hand, the conſumers feel a very great riſe in the price of every article of their conſumption; and many of them have complained of this as a moſt miſchievous effect. I was aſſured that theſe prices have been doubled. Such complaints can be juſt only with reſpect to idle conſumers at fixed incomes; a penſion or an annuity is undoubtedly not ſo valuable now as it was before the free corn trade; this is clear; but it is equally certain that landlords, and all the mercantile and induſtrious claſſes profit greatly by the general riſe: this fact is admitted, nor would the improvement of all the arts of induſtry, the ſituation of the poor moſt highly ameliorated, and the increaſe of population allow it to be queſtioned. Before the free trade the average price was 5½ *pauls* (each 5½d.) per *ſtajo*, of fifty-four pounds; now the average is 9 *pauls*. Here is a riſe in the price of 40 per cent. Thoſe whoſe intereſts, or whoſe theories point that way, will contend that this muſt be a moſt pernicious evil, and that the conſumers of corn muſt ſuffer greatly; it however happens, and well it deſerves to be noted, that every branch of induſtry, commercial and manufacturing, has flouriſhed more decidedly ſince that period, than in any preceding one, ſince the extinction of the Medici. This is one of the greateſt political experiments that has been made in Europe; it is an anſwer to a thouſand theories; and ought to meet with the moſt ſtudious attention, from every legiſlator that would be thought enlightened.

No body can expreſs himſelf better againſt the regulations in the corn trade, than Paoletti:—"*Uno dei più gravi e dei più ſolenni attentati, che in queſto genere ſi ſia fatto, è che ancora, da una gran parte dei politici governi ſi fà all' ordine naturale é certamente quello, delle reſtrizioni é dei divieti nel commercio de' grani. Non han conoſciuto moſtro il più orribile, il più funeſte quelles fortunate nazioni che ne ſeno ſtate infeſtate. Le peſti, le guerre, le ſtragi, le proſcrizioni dovunque aprirono il teatro alle loro tragedie non arrecarono mai tanti danni al genere umano, quanto queſta arbitraria politica* *."

It is remarked, by a very intelligent writer, that the early declenſion of Tuſcan agriculture, was cauſed by the ill-digeſted and injurious laws of reſtriction and prohibition, in the beginning of the ſixteenth century: the price of proviſions was regulated, in order to feed manufacturers cheaply, not perceiving that the earth gave ſcanty fruits to poor cultivators; that exalting the arts by the depreſſion of agriculture, is preferring the ſhadow to the body. Wool was wanted for the fabrics, yet no encouragement given to breeding ſheep. Merchants and manufacturers compoſing the legiſlative body, whoſe intereſts were concentrated in Florence; all the other towns, and generally the country, were ſacrificed at the ſhrine of the capital: they made a monopoly of the Levant trade, and even of ſhip-building; which had ſuch pernicious conſequences, that in 1480, they

* *Iveri Mezzi*, &c. *Ap. Apol.* 1772, 8vo. p. 19.

were

were obliged to lay open the remnants of trades once flouriſhing *. They ſhewed the greateſt eagerneſs to encourage the planting of mulberry-trees; yet knew ſo little of the means of doing it, that they ſubjected the ſale of cocoons to a multitude of reſtrictive regulations, and even fixed the price, and gave a monopoly of the purchaſe †; and even the power of fixing the price of ſilk was, by the government, given to four dealers; and in 1698, the whole trade was ſubjected to the price of one man; and ſuch was the effect of theſe fine meaſures, that a law was paſſed *forcing* plantations of mulberries; four trees to every pair of oxen employed ‡. So utterly ſubverſive of the intention will the prohibitory ſyſtem always prove!

By the edicts of 1775, 1779, and 1780, of the Grand Duke, a multitude of reſtrictions, on the ſale of cocoons and wool, and on the fabric of both ſilks and woollens, were aboliſhed. A free trade in corn, oil, cattle, and wool, was given § about the ſame time; as well as the rights of commonage deſtroyed ‖. By the edict of March 18, 1789, the plantation and manufacture of tobacco was made free; and, that the farmers of the revenue might not be injured, the benevolent ſovereign declares he will buy all cultivated on the uſual terms, till the expiration of the farmer's leaſe ¶.

I am very ſorry to add to the recital of ſuch an enlightened ſyſtem, a conduct in other reſpects borrowed entirely from the *old ſchool*: the export of cocoons has been long prohibited; and even that of ſpun ſilk is not allowed. But what is much worſe than this, the export of wool, about ſix months ago, was forbidden, under the ſhallow pretence of encouraging manufactures. Such a monopoly, againſt the agriculture and improvement of the country, is directly contrary to the general ſpirit of the Grand Duke's laws. The ſame arguments which plead in its favour, would prove equally in favour of prohibitions, and ſhackles on the corn trade; he has broken many monopolies: Why give anew one? The moſt plauſible plea for this is the example of England; but does he know that of all the fabrics of that kingdom, this of wool is the leaſt flouriſhing; and preciſely by reaſon of the manufacturers having the monopoly of the raw material, and thereby being enabled to ſink the price 60, and even to 70 per cent. below the common rates of Europe? The total failure of this policy in England, which cheats the land of four millions a year, in order not to increaſe, but to hurt the fabric, ſhould plead powerfully againſt ſo pernicious an example. They ſhould know that the raw materials of our moſt flouriſhing fabrics are exportable; ſome free, and others under low duties; and that wool is an exception to all the reſt; and at the ſame time, the manufacture that has made the leaſt progreſs **.

Modena.—The export of wool is prohibited; wherever this is the caſe, it is not to be expected that any exertions can be made in improving the quality; and accordingly we find that all the Modeneſe is miſerably bad. The meaſure is intended as a gratification to the manufacture; and when that poſſeſſes the monopoly, the wool is ſure to be

* *Ragionamente Sopra Toſcano*, 68.

† Coſmo I. firſt allowed the export of cocoons, February 22, 1545; ſubject to a duty of 18*ſ.* the pound, of one ſort, and 3*ſ.* the other; augmented ſucceſſively, and at laſt fixed to 2 livres.

‡ *Ragionamente*, p. 83.

§ *Leggi dei*, Sep. 14, 1774; Dec. 28. Alſo, Aug. 24, and Dec. 11, 1775.

‖ March 7, and Apr. 11, 1778.

¶ *Della Coltivazione del Tobacco*, *Laſtri*. Firenze, 8vo. 1789, p. 40.

** See this point particularly explained in *Annals of Agriculture*, vol. x. p. 235, and in many other papers of that work. Some of theſe memoirs were tranſlated and publiſhed in French, under the title of *Filature, commerce et prix des Laines en Angleterre*, 8vo. 1790; but ſome of the beſt papers, for inſtance that above alluded to, and others, were left out of the collection.

worthleſs; which is the caſe here. They make in the mountains, ſome coarſe things for the wear of the common people.

PARMA.—There is a fabric of earthen-ware at the city of Parma, to encourage which the import of all foreign ware is prohibited; the effect is, that the manufacture is contemptible, without an effort of improvement; it has the monopoly of the home conſumption, which yields a great profit, and further nobody looks. It was juſtly obſerved to me, that with ſuch a favour no flouriſhing manufacture could ever ariſe at Parma, as the advantage of the monopoly was greater. The policy of prohibitions has every where the ſame reſult.

SECT. VII.—*Of the Prices of Proviſions*, 1789.

Niee.—Bread, 3*ſ.* (the Piedmonteſe *ſol* is the twentieth part of a livre, or a ſhilling, and the pound is about one-tenth heavier than the Engliſh.) Beef, 3*ſ.* 8 *den.* Mutton, 4*ſ.* Veal, 5*ſ.* Butter, 12*ſ.* Cheeſe, 11*ſ.* Bread, laſt winter, 1 *piccolin* (one-ſixth of a *ſol*) cheaper. At theſe prices of meat, weighing-meat added.

Coni.—Bread 2*ſ.* 3 *den.*; for the poor, 1½*ſ.* Beef, 3*ſ.* 2 *den.*

Turin.—Bread, 3*ſ.* Veal, 5*ſ.* Butter, 9*ſ.* Cheeſe, 9*ſ.* Brown bread, 2½*ſ.*; for the poor, 1*ſ.* 8 *den.* Nobody but the poor eats beef or mutton.

Milan.—Beef, 13*ſ.* Cow ditto, 10*ſ.* (the *ſol* the twentieth of the livre, which is 7½d.; the pound *groſſo* is to that of England, by Paucton, as 1.559 is to 0.9264). Mutton, 10½*ſ.* Veal, 15*ſ.* Pork, 18*ſ.* Butter, 35*ſ.* Cheeſe, Lodizan, 42*ſ.*

Codogno.—Bread, 4 oz. 1*ſ.* Beef, 12*ſ.* per lb. Veal, 12*ſ.* Butter, 22*ſ.*

Verona.—Bread, 5*ſ.* per lb. of 12 oz. (equal to ¾ lb. Engliſh). 20 Venetian *ſols* equal to 6d. Engliſh.

Vicenza.—Beef, 14*ſ.* per lb. of 12 oz. *groſſo*; this ounce is to the Engliſh, as 690 is to 480. Mutton, 13*ſ.* Veal, 16*ſ.* Pork, 17*ſ.* Butter, 30*ſ.* Cheeſe, 32*ſ.*; ditto of Lodi, 44*ſ.* Hams, 44*ſ.* Bread, by the ounce *ſotile* (which is to the *groſſo*, as 1 is to 1¼), 6*ſ.*

Padua.—Beef, 14*ſ.* per lb. of 12 oz. *groſſo* (which is to the Engliſh pound, as 9966 is to 9264. Paucton). Mutton, 12*ſ.* Veal 16*ſ.* Pork, 16*ſ.* Butter, 32*ſ.* Cheeſe, 24*ſ.*

Venice.—Beef, 15*ſ.* per lb. *groſſo* (to that of Engliſh, as 9758 is to 9264. Paucton.) Mutton, 13*ſ.* Veal and pork, 18*ſ.*

Ferrara.—Beef, 3½ *baiocchi* (10 to a *paul* of 6d.) per lb. of 12 oz. Mutton, 3 *baioc.* Veal, 4 *baioc.* Butter, 9 *baioc.* Cheeſe, 8 *baioc.*

Bologna.—Bread, 2 *baiocchi* per lb. (to the pound Engliſh, as 7360 is to 9264, Paucton). Beef, 4 *baioc.* 2 *quatrini.* Mutton, 3 *baioc.* 4 *quat.* Veal, 5 *baioc.* 2 *quat.* Pork, 6 *baioc.* Butter, 10 *baioc.*; and in winter, from 15 *baioc.* to 20 *baioc.*

Florence.—The livre (of 8½d.) is 12 *grazie*, or 20 *ſoldi*, the *ſol* is 3 *quatrini*; and the pound is three-quarters Engliſh. Bread, 8 *quatrini* per lb. Meat in general, 7½*ſ.* Butter, 1½ *paul* (the *paul* 5½d. Engliſh.) Cheeſe, 10*ſ.*

MODENA.—Bread, the beſt white, ¾ *paul* per lb. (the *paul* is 6d. Engliſh; and the pound is to ours, as 6513 is to 9264, or ſomething under twelve of our ounces). For the poor it is cheaper. Bread is thus dear, owing to the *entrées* and *gabelle*; a ſack of flour, of 70 livres ſells at 100 livres. Beef, 12 *bolognini* per lb. Mutton, ⅓ of a *pau*, or 10 *bol.* Veal, 13 *bol.* Pork, 14 *bol.* Butter, 1 *paul.* Cheeſe, 40 *bol.*

Laneſbourg.—Bread, 4*ſ.* for 18 oz. Meat of all ſorts, from 3*ſ.* to 3½*ſ.* for 12 oz. Cheeſe, from 4*ſ.* to 5½*ſ.* Butter, 6*ſ.* for 12 oz.

Corn

Corn, 1789.

PIEDMONT.—*Coni.*—Rye, the *eymena* of 2 *rubbio*, or 50 lb. 3 liv.

Chentale.—Wheat, the *eymena* of 45lb. aver. 47, 3 livres 15*ſ.* In common, 3 livres 15*ſ.* Maize, 2 livres.

Turin.—Maize, 2 livres. Wheat, 3 livres 10*ſ.* the *eymena* of 50 lb. Rye, 2 livres 10*ſ.*

Milan.—Wheat, 34 livres the *moggio* of 140 lb. 28 oz. Oats, 15 livres. Maize, 20 livres. Miglio, 18 livres. Rice, 44 livres.

Codogno.—Rice 5 livres the *ſtara*. Willow wood, 14 livres 6 *braccio* long and 3 *braccio* broad. Flax, 5½*ſ.* for 5 oz. ready for combing; 50*ſ.* per lb.

Verona.—Wheat, the export prohibited when it exceeds 24 livres the ſack (26s. 6d. Engliſh quarter). Maize, now 24 livres the ſack, of 11 *peſi*, of 25 lb.; common price, from 20 livers to 22 livres; has been ſo low as 6 livres.

Venice.—Wheat flour, 8½*ſ.* per lb. Bergamaſque maize, 24*ſ.* the *quarterole*, of 6 lb. Common maize, 22*ſ.*

Bologna.—Wheat, the *corba*, 24 *pauls*. Maize, 18 *pauls*. Oats, 12 *pauls*. Barley, 16 *pauls*. Beans, 18 *pauls*.

Florence.—Wheat, 9 *pauls* the *ſtajo*, which may in a rough way be called 1d. per lb.: this is 4s. 9d. per Engliſh buſhel, of 57 lb.; and 5s. per buſhel, of good wheat. Before the free corn trade, it was on an average, at 5½ *pauls*. Beans, now 5½ *pauls* to 7 *pauls*. Saggina (great millet), 4 *pauls* the *ſtajo*. Maize, from 4 *pauls* to 5 *pauls*. Barley, 5 *pauls*. Oats, 4 *pauls*. French beans, 7 *pauls*.

Wine, Fuel, Hay, Straw, &c.

Nice.—Wine, 7*ſ.* the bottle. Charcoal, 24*ſ.* per 100 lb. Wood, 15*ſ.* per 100 lb.

Chentale.—Hay, from 5*ſ.* to 8*ſ.* the *rubbio*, of 25 lb.

Turin.—Hay, 10*ſ.* the *rubbio*, Straw, the ſame. Wine of Brenta, 7 livres 10*ſ.* the 36 pints, each 4 lb.; for the poor, 4 livres. Wood, 12 livres the load, of 200 pieces, 3 feet long. Charcoal, 12½*ſ.* the *rubbio*. Candles, from 9*ſ.* to 10*ſ.* Soap, 7*ſ.* Lime, 5½*ſ.* the *rubbio*. Bricks, 22 livres per thouſand.

Milan.—Iron, the pound of 12 oz. 5*ſ.* Charcoal, 100 lb. of 28 oz. 3 livres. Bricks, 30 livres per thouſand.

Mozzata.—Wine, common price, 10 livres or 12 livres the *brenta*, now 6 livres.

Milan.—Hemp, ready for ſpinning, 1 livre per lb. of 28 oz. Flax, ditto, 32½*ſ.* Oil, linſeed, per lb. of 28 oz. 26*ſ.* Walnuts, 1 livre.

Verona.—Wood, 5*ſ.* the *peſo*, of 25 lb. (18 lb. Engliſh.)

Vicenza.—Candles, 20½*ſ.* Soap, 20*ſ.* Dutch herrings, 3*ſ.* each. Iron, 11*ſ.* *groſſo*. Charcoal, from 5 livres to 8 livres the 100 lb. Coals, from Venice, 4½ livres the 100 lb. Wood, the *carro*, of 108 cubical feet, 22 livres; of oppio, walnut, &c. the pieces the ſize of a man's arm. Sugar, from 25*ſ.* to 35*ſ.* *ſotile*. Coffee, 3 livres 6*ſ.* Chocolate, 3½ livres or 4 livres; with vanilla, 6 livres or 7 livres. By the ounce *groſſo*, which is to the ounce Engliſh, as 690 is to 480, is weighed fleſh, butter, cheeſe, candle, ſoap, &c. By the ounce *ſotile*, is weighed ſugar, coffee, drugs, rice, bread, ſilk, &c; it is as 1 is to 1½.

Ferara.—Wine, 1 *baiocca* the *bocali*.

Bologna.—

Bologna.—Wood, the load, 30 *pauls.* Faggots, 24 livres per two hundred. No coal. Charcoal, 1½ *paul* the *corba.* Bottle of common wine, from 3 *baioc.* to 5 *baioc.*: common price of wine, from 20 *pauls* to 30 *pauls* the *corba* of ſixty *bocali.* Sugar, 2 *pauls* 1 *baioc.* the pound. Coffee, 2 *pauls* 2 *baioc.* Of Moka, 3 *pauls* 5 *baioc.* Candles, 8 *baioc.* Wax ditto, 8 *pauls.* A footman with a livery, 50 *pauls* a month. A man cook, from 20 to 40 *zecchins.* An Engliſh gentleman's table is ſerved, nine in the parlour and five in the kitchen, by contract, for 20 *pauls* a day.

Florence.—To plough a ſtiora of land, 3 livres. Hay, 4 *pauls* the one hundred pounds (about 2l. 15s. a ton). Straw, 3 *pauls* per one hundred pounds. Wine, 8 *grazie* the bottle. Charcoal, one hundred pounds, 4 *pauls.* Wood, the cataſter of ſix braccia long, one and a half broad, and two high, 28 livres. Rent of a poor man's houſe, 18 *pauls.*

MODENA.—Wood, 45 livres the load, of three braccia long, three high, and three broad. Wine, 40 livres the twelve *peſi.* Candles, 20 *bol.* Soap, 15 *bol.*

PARMA.—Hay, eighty *peſi*, 150 livres (the *peſi* twenty-five pounds, each three fourths of a pound Engliſh, and the livre 2½d. about 1l. 9s. per ton).

Labour.

Nice.—Summer, 30*ſ.* (1s. 6d.) Carpenter and maſon, 40*ſ.* (2s.)

Coni.—Summer, 14*ſ.* Winter, 10*ſ.* (6d.) Maſon, 25*ſ.*

Savigliano.—Summer, 12*ſ.* Winter, 10*ſ.* Farm ſervants wages, about 100 livres, (5l.) a year, beſide their food, which conſiſts of three pounds or four pounds of bread, according to the ſeaſon, a ſoup maigre, a *polenta* (a maize pudding), &c. &c. During the ſummer, they add cheeſe and a little ſmall wine, with a ſallad; and in harveſt time a ſoup of good wine, which they call *merendon*, but they then work twelve hours a day.

Turin.—Summer, 11*ſ.* Maſon, 25*ſ.* Carpenter, 27*ſ*

Milan to Pavia.—Summer, 22½*ſ.* (8d.) Winter, 10*ſ.* (3½d.) Manufacturers, 40*ſ.* Labourers pay 7 livres (at 7d. Engliſh) for a cottage, and a very little garden.

Mozatta.—Summer, 12*ſ.* Winter, 10*ſ.*

Lodi.—Summer, 20*ſ.* Winter, 12*ſ.* Harveſt, 30*ſ.* Mowing, 20*ſ.* a day; a good hand mows five pertiche a day.

Codogno.—Weavers, 20*ſ.*

Verona.—Summer, 30*ſ.* (9d.) Winter, 20*ſ.* (6d.)

Vicenza.—Summer, 16*ſ.* Winter, 14*ſ.* Mowing, 30*ſ.*

Padoua.—Summer, 25*ſ.* and wine. Mowing, 2 livres (1s.) a day: wheat, 3 livres ditto. Winter, 16*ſ.*

Venice.—Summer, from 30*ſ.* to 40*ſ.* Maſon, 4 livres: the loweſt in the arſenal, 3 livres a day.

Ferrara.—Summer, 25 *baiocchi* (1s. 3d.) Winter, 12 *baioc.*

Bologna.—Summer, 12 *baioc.* and 2 *bocali* of wine, each three pounds four ounces. Winter, 10 *baioc.* (6d.) In harveſt, to 20 *baioc.* Half a day, of four oxen and two men, 5 *paoli* (2s. 6d.) Manufacturers earn from 5 to 20 *baioc.* a day. The women that ſpin hemp, 3 or 4 *baioc.*

Florence.—In the ſilk mills of Florence, they are now (November) working by hand, for want of water. The men earn 3 *pauls* (1s. 4½d.) A girl of fifteen, 1 *paul* (5½d.) In the porcelaine fabrics of the Marcheſe Ginori, common labour, 2 or 3 *pauls.* Painters, 4½ *pauls.* In ſummer, 1½ *paul* and food. In winter, 1 *paul* and ditto. To plough a

ſtiora

ſtiora of land, 3 livres. Threſhing corn by the day, 1 livre and food. Cutting corn, 18 *grazie* and food.

MODENA.—Common labour, 1 *paul* and wine. Carpenter and maſon, 2 *pauls*.

PARMA.—Printer's men, 3 *pauls* a day, (16½d.)

Laneſbourg.—Winter, 10*ſ*. and food. Summer, 20*ſ*. and food.

Poultry.

Nice.—Turkey, 7 livres. Fowl, 20*ſ*. Pigeon, 20*ſ*. Eggs, 12*ſ*. the dozen.

Turin.—Turkey, 30*ſ*. Fowl, 15*ſ*. Duck, 25*ſ*. Gooſe, 25*ſ*. Pigeon, 10*ſ*. Eggs, the dozen, 8*ſ*.

Milan.—Turkey, 11*ſ*. per pound. Fowl, 20*ſ*. Duck, 32*ſ*. Eggs, the dozen, 26*ſ*. Capon, 15*ſ*. per pound.

Bologna.—Turkey of about four pounds 3½ *pauls*. Pair of capons, 30 *baiocchi*. Eggs, 1 *baioc*. each; in winter, 1½ *baioc*. Tame large pigeons, 24 *baioc*. the pair. Wild ſmall pigeons, 12 *baioc*. Eels from 12 to 14 *baioc*. per pound. Tench, 10 *baioc*. per pound. Pike, from 12 to 15 *baioc*. Sturgeon, 5 or 6 *pauls* per pound.

MODENA.—Capon, 1 *paul*. Fowl, 40 *bol*. Turkey, 4 livres. Duck, 4 livres. Twenty eggs, 25 *bol*. Pigeons, 1 *paul* the pair.

Riſe of Prices.

Milan.—In 794, a decree of the Senate and Diet of Frankfort, canon four, that corn ſhould ſell at the following prices, no regard to ſcarcity and abundance:—*Moggio* of oats 1 *denaro*; one of barley, 2 *denari*; one of rye, 3 *denari*; one of wheat, 4 *denari*; proportion 1080 to 1.

In 835, hogs, 20 *denari*.

In 857, one pound of ſilver, *lira*, 20 *ſoldi* of 12 *denari*; one *denaro*, now at Milan, on compariſon of an antient *denaro* of half a *paolo*, was as 1 to 90; for 90 *denari* make half a *paol*. The value of ſilver now to that of antient times, as 1 to 12; therefore it is 1 to 1080 *.

In 975, *un ſtajo di vino*, 1 *denajo*; *un moggio di frumento*, 4 *denaji*; *un carro di legna*, 1 *denajo*, equal to 18 livres, at 1 to 1080 †.

In 1152, rye and panic, 3 livres the *moggio*; 1 *denaro* equal to 130; conſequently 3 livres is equal to 13 livres 10*ſ*. 10 *den*. ‡

In 1165, 500 hogs, each 6 *ſoldi*; which now we muſt call 65 livres each ‖. Cart load of wood drawn by a pair of oxen, 12 *denari*; equal now to 6½ livres

In 1272, 1 *moggio* of wheat, the common price 19 *ſoldi*. Millet, 12 *ſoldi*; and this to the money of the preſent time, is as a livre for a ſol; that is, wheat 19 livres and millet 12 livres §.

In 1315, 1 *ſoldo* for a maſs, equal to twenty now; 1 *fiorino d'oro*, 30*ſ*. now 60 livres, as 1 to 40; the *fiorino d'oro* ancient, and the preſent *zecchino* the ſame thing. From this time to the preſent, the proportion of the money of thoſe times to the preſent, is as to 4.¶

In 1402, the *fiorino o ducato d'oro*, worth 42 *ſoldi*, equal to 16 livres 8*ſ*. at preſent **.

Bologna.—The prices of every thing are now at Bologna from 10 to 15 per cent. dearer than ten years ago; here attributed to the increaſed plenty of money from a riſe of

* *Giulini, Storia di Milano*, vol. i. p. 268. † *Ibid*. vol. ii p. 380. ‡ *Ibid*. vol v p. 27.
‖ *Ibid*. vol. vi. p. 332. § *Ibid*. vol. viii. p. ¶ *Ibid*. vol. x. p. 87. ** *Ibid*. vol. xii. p. 63.

the

the price of the products of the country, hemp and silk selling much higher. Twenty years ago hemp was at 30 *pauls*, new at 50. And in Tuscany the prices of every thing doubled since the free corn trade.

It is worthy of the reader's observation, that the general prices of provisions and of living, as it may properly be called, have risen perhaps as much in Italy as in any country in Europe; certainly more than in England, as I could shew by many details if they were consistent with the brevity of a traveller. A fact of so much importance would admit of many reflections; but I shall observe only, that this sign of national prosperity (and I believe it to be one), is not at all confined to the countries in the possession of extensive manufactures and a great trade, since we find it in those that have none.

I shall not enlarge upon it, but barely hint that the possessor of a landed estate in Lombardy has raised his rents to the full as much in the last ten, twenty, thirty, or forty years, as his brother landlord has in England, who has blessed himself with the notion that manufactures and commerce have done more for him, than for any other similar class in Europe. It is very common in the English parliament, to hear the deputies of our tradesmen expatiate on what the immense manufactures and commerce of England have done for the landed interest. One fact is worth an hundred assertions: go to the countries that possess neither fabrics nor commerce, and you will find as great a rise perhaps in the same period.

SPAIN

Cultivation, &c.

THE vale of Aran * is richly cultivated, and without any fallows. Follow the Garonne, which is already a fine river, but very rapid: on it they float many trees to their saw-mills, to cut into boards; we saw several at work. The vale is narrow, but the hills to the left are cultivated high up. No fallows. They have little wheat, but a great deal of rye; and much better barley than in the French mountains. Instead of fallows, they have maize and millet; and many more potatoes than in the French mountains. Haricots (French beans) also, and a little hemp. Saw two fields of vetches and square pease. The small potatoes they give to their pigs, which do very well on them; and the leaves to their cows; but assert that they refuse the roots. Buck-wheat also takes the place of fallow, many crops of it were good, and some as fine as possible.

The whole valley of Aran is highly peopled; it is eight hours long, or about forty miles English, and has in it thirty-two villages. Every one cultivates his own land. A journal of meadow sells in the valley for 800 livres irrigated, but by no means so well as in the French mountains, nearly an arpent of Paris, which is something more than an English acre. The lower arable lands are sold for 500 livres or 600 livres; the sides of the hills proportionably; and the higher lands not more than 100 livres. Their crops of all sorts vary from two and a half to three quarters English the acre. Hay harvest no where begun.

* The route in which these observations were made, is marked in the journal inserted in the first volume; see the dates.

The mountains belong as in the French Pyrennees, to the pariſhes; each inhabitant has a right to cut what wood he pleaſes for fuel and repairs, in the woods aſſigned for that purpoſe; others are let by leaſe at public auction for the benefit of the pariſh, the trees to be cut being marked; and in general the police of their woods is better than on the French ſide; when woods are cut they are preſerved for the next growth.

Have ſcarce any oxen; what few they kill they ſalt for winter. Taxes are light; the whole which a conſiderable town is aſſeſſed at being only 2700 livres, which they pay by the rent of their woods and paſtures let: but if calculated by tailles, houſes, &c. and including every thing, the amount would be about 3 livres a-year on a journal of 600 livres value. This is the proportion of an acre of land worth 30l. paying 3s. a year in lieu of land and all other taxes.

Coming out of Veille, ſee to the right ſome of the moſt ſtoney land I have ever beheld, yet good hemp and buck wheat were growing on it. In the hedges many of the plants common to them in England. The paſtures on the mountains good quite to the ſnow; but the low meadows not watered with the attention given them by the French in their Pyrennees. Paſs ſeveral of the thirty-two villages of the valley of Aran; population very great for they croud on each other; and this reſults here from the diviſion of property, and not from manufactures, which have more than once been ſuppoſed the only origin of great population.

Much millefolium here, and other plants common with us. Plough with bullocks; all we ſaw pale reddiſh or cream-coloured, and with horns.

No wood at the top, but paſturage and rocks of micaceous ſchiſtus; met a great herd of dry cows and oxen cream-coloured. It is remarkable that a pale reddiſh cream-colour holds from Calais quite acroſs France hither, with very little variation.

Flocks of ſheep and a penn for oxen and cows—the latter milked for cheeſe. Plough with oxen in yokes and bows as inEngland, and not yoked by the horns as in the ſouth of France. Come to fallows (which is a point of worſe huſbandry than we have ſeen for ſome time), manuring by aſſes loaded with baſkets. The trees here (pines) are finer than on the French ſide; they are all cut for the Toulouſe market, being carried over the mountains and floated down the Garronne; from whence we may draw concluſions on the comparative demand of the two kingdoms. Land ſells here from 400 livres to 500 livres the journal.

Come to the valley d'Eſteredano, where wheat and rye are cut. Every ſcrap on the deſcent is cultivated; an extenſive ſavage view of mountain, with patches of culture ſcattered about the declivities: but fallows are found here.

Paſs Rudaſe, on the top of a rocky mountain, come preſently to vines, figs, and fruit trees; ſnow in ſight. As we deſcend to the vale, every ſpot is cultivated that is capable of being ſo.

Croſs the river to Realp; about which place is much cultivation, as the mountains ſlope more gently than hitherto. Hedges of pomegranates in bloſſom. The town is long and has many ſhops. Hemp is the great object in it; of this they make ropes, twine of all ſorts, bags, and have ſome looms for converting it into cloth. Corn and hay all carried on panniers.

Paſs Sort, a vale ſpoiled by the river, which exhibited the depredations of the Italian rivers, ſo excellently deſcribed by my learned friend Mr. Prof. Symonds.

Hitherto, in Catalonia, we have ſeen nothing to confirm the character that has been given of it; ſcarcely any thing has a tolerable appearance. It is much to be queſtioned, from the intelligence, whether they have any ſuch a thing as a farmer who rents land: only patches of property; no maize, and French beans very poor; fallows every where

on

on the hills, and yet the rye after them miſerable. Old vineyards of late quite neglected, over-run with weeds, yet the grapes of a ſize that ſhew what the climate is; they are now as big as peaſe. In the towns every thing as bad; all poor and miſerable.

Riſing up the mountain, which is all of pudding ſtone, we find it is all cut into terraces, ſupported by many walls, with rows of vines on them for raiſins, not wine, mulberries, and olives: but here are fallows, and I thought I perceived traces of theſe hills having been formerly more cultivated than at preſent.

Paſs Colageſe. Come to a regular vineyard, the rows twelve feet aſunder, the intervals alternate fallow and corn. The features of the country now begin to relax, the mountains are not ſo high, and the vales are wider. The leaves of a good mulberry-tree ſell for 44*ſ.* or 22*d.* Engliſh.

Many walnut-trees full of fruit. Much is tithed by the church: ſee much corn threſhing every where.

Croſs two pieces that had rye laſt year, left now to weeds, and will be under rye again next year; an extraordinary courſe. Mulberry leaves never ſold, but if ſo, the price would be about 4½ livres a tree. Cows all red. Land in the vale ſells from 20*l.* to 25*l.* Engliſh the journal. The road leads up Monte Schia, the whole of which conſiſts of a white ſtone, and argilaceous marl. Snow on the diſtant mountains.

Look back over a great proſpect, but totally to the eye without wood. Croſs a hill to another great vale, where is much, and ſome rich cultivation, as the hills are not ſteep, but ſloping.

Paſs in ſight of St. Roma, near it the road leads by a ſmall round lake, but it is on very high grouud, no hills near it; it is ſaid to be very deep. Here they were hoeing a barley ſtubble, juſt ploughed, to form ridges, on which they ſow French beans. This diſtrict is called that of ſhells: millet juſt up; paſs a large waſte almoſt entirely covered with lavender; corn on a part of it; but after a crop, they leave it to weeds to recover again. Here alſo they practiſe the alternate huſbandry of one bed, or broad-ridge, corn, and another fallow. Plow with cream-coloured oxen. In breaking up the waſtes here, they cut the ſpontaneous growth to dry, then pile it into heaps with the earth pared and placed on it; this is all burned; we ſaw heaps ready to be burned to the quantity of five hundred loads an acre: but the crops are wretched for many miles, ſcarcely the ſeed again.

In our inquiries, meet with ſome traces of what in France are called *metayers*, that is, a ſort of farmers who cultivate the land for half the produce; the landlord taking one half, and the tenant the other.

For two hours and a half, paſs a waſte mountain covered with ſhrubs, and ſcattered with ever-green oaks, and lower down the evident remains of old terraces, which have once been cultivated, but now over-run with weeds. To Fulca; the ploughs here have all long beams, as in the ſouth of France, which reach to the yokes of the oxen, and conſequently they have no traices; two ſmall ſticks form the mould-board; they plough all flat.

In this diſtrict not one acre in an hundred cultivated, all rocks, ſhrubs, and weeds, with patches of wretched oats on the mountain ſides. The road leads up one which is all of ſtone, covered with roſemary, box, brambles, &c. At the top break at once on the view of a deep vale, or rather glen, at the bottom of which a muddy river has ſpoiled the little land which might have been cultivated. The hills are ſteep, and all is cultivated there that could be ſo, but the quantity very ſmall.

Deſcend into a very rich vale, and to the town of Paous. There we ſaw many perſons winding ſilk, the cocoons were in warm water, and wound off by a well-contrived reel, ſomething different from thoſe uſed in France.

Prices.—Bread, 3*ſ.* per pound, of twelve ounces.
Mutton, 6*ſ.* per pound, of forty-eight ounces.
Pork, 15*ſ.* per pound, of forty-eight ounces.
Bottle of ſweet white wine, 5*ſ.*
Bottle of ſweet red wine, 2*ſ.*

Here they were threſhing, by driving mules around on a circular floor of earth, in the open air; a girl drove three mules round, and four men attended for turning, moving away the ſtraw, and ſupplying the floor with corn. Their crops are all brought home by mules or aſſes with panniers; met ſeveral; they each carried ſix ſheaves, equal to twenty common Engliſh ones; where roads are bad, this is the only way in which it can be done.

Paſs a great waſte of argillaceous marl, in which are ſtrata of talc: much of it a ſoft white rock; the ſtrata in ſome places clear and tranſparent, ſhining, break in thin flakes; the country for many miles waſte, ſo that there are not more, I gueſs, than one acre in two hundred cultivated.

More deſerts for ſeveral miles. Some alternate fallow huſbandry between vines, and the crops ſo contemptible, that they produce not more than the ſeed. Paſs ſome vineyards ſurrounded on every ſide by deſerts; no water, and yet the vines and grapes are of the moſt beautiful luxuriance; from which I conclude, that immenſe tracts of theſe waſte lands might be applied with equal profit, if there were men and capitals enough in the country.

Meet a farmer, who pointed out to us a piece of land, containing exactly a Catalonia journal, from which it appeared to be pretty nearly the ſame meaſure as an Engliſh acre. They ſtack their corn by the threſhing floor, drive mules, &c. around upon it, and draw the ſtraw, when cleared, with ropes by a mule to the ſtack, in which it is depoſited for winter uſe.

To Beoſca, moſtly deſert hills, but ſome broad vales, which are cultivated; about that place many mulberries, vines, and corn, but all the laſt gained by fallow. A farmer here pays a ſeigneur, who lives at Barcelona, 2000 livres a year for his farm, which is reckoned a large one. Through all this country, they collect from every waſte ſpot amongſt their cultivated lands ſhrubby wood and weeds, with which they burn heaps of clods and earth, and ſpread the aſhes on the fallow as a manure for corn.

There ſeems every where to be incloſures ſufficient for aſcertaining diſtinct properties, but not for ſecurity againſt any ſort of cattle. No where any wood to be ſeen, except fruit trees, olives, or ever-green oaks, which are almoſt as ſad as the olive; altogether nothing for beauty of landſcape. The hills all rocks, and the vales vines, ſcattered with thoſe trees. Some new plantations of vines. Towards Toorà, the country is much more cultivated; the ſides of the hills covered with olives. The vale has many mulberries, and much tillage; and for ſome miles paſt there are many ſcattered houſes, which has not been any where the caſe before: remarked one great improvement, which was a vineyard, with vetches ſown in the alternate huſbandry between the rows, inſtead of a fallow, to be followed by corn.

Leave Calaff.—Crop and a fallow; ſome vetches; much cultivation; and better corn than we have in general met with; ſome ſown in ſquares, as if in cluſters, but could not learn the fact. In ſome parts many vetches, inſtead of being fallow; they are planted by hand, and wheat ſown after. The ſoil, a good adheſive loam, brown with a reddiſh hue, better than the white land, which travelled with us ſo long yeſterday: moſt of the corn cut.

Great waſte, and mount a hill, from whence an extenſive view; all the country alike, no wood; and not one acre in ten cultivated. Paſs four or five cream-coloured bullocks, and one or two blood-coloured. I note them, having ſeen ſo few in ſo many miles.

French beans, eighteen inches by twelve; a good deal of cultivation; but vaſt waſtes, and country of a rocky, ſavage aſpect; many pines, but poor ones. Within four hours of Montſerrat, vines at ſix feet aſunder, the firſt we have ſeen planted in that manner, which ſhews the proprietor content with having one product only on the ground.

Waſtes continue; not one acre in a hundred cultivated. All broken country, and ſcarcely any vales of breadth.

At the bottom we came again to olives. Meet two very fine cream-coloured oxen, which the owner ſays would ſell for about eighteen guineas; feeds them with ſtraw, but gives oats or barley when they are worked; they are in ſuch good order, that the ſtraw muſt either be much more nouriſhing than ours, or their work very light indeed. From the marks in the pine-trees, conjecture that they draw reſin from them.

Paſs Orevoteau, where is a hedge of aloes about four feet high. A gradual deſcent for ſome time on a wretched ſtoney deſert, of nothing but aromatic plants, thin, and ſcattered with the diſmal ever-green oaks, more dull and diſagreeable, if poſſible, than the olives.

Near *Ffparagara*, vines at five or ſix feet, which cover the ground; red loam, mixed with ſtones. This town is the firſt manufacturing one we have met with, or which ſeemed to be animated with any other induſtry than that of cultivation. The fabric is woollen cloths and ſtuffs. Spinners earn 6*ſ.* a day, and food. Carders, 11*ſ.* They have alſo many lace-makers, who earn 9*ſ.* a day. Theſe are Spaniſh money; their *ſol* is ſomething higher than the French, which is our halfpenny.

Fallow every where, yet many of the ſtubbles full of weeds. Corn yet in the field, and poor. Some vines promiſcuous, at four feet; ſome in rows, at ſix feet. Country diſagreeable; many beds of torrents, without a drop of water, and ſhocking to the eye. Apricots, plumbs, melons, &c. ripe, ſold in the ſtreets, from the open ground. A pair of very fine cream-coloured oxen, 24l. Engliſh: the amazement is, how they can be kept in ſuch order, in a country ſo arid and deſert, and that has not a pound of hay in it.

The country now is far more populous and better built: many vines and great cultivation, but with fallows. The ſoil all a ſtrong red loam; a way cut through a vineyard of this ſoil, which ſhewed it to be ſeven feet deep; at the bottom was a crop of fine hemp; indeed the ſoil to the eye was as good at the bottom as on the ſurface.

They plough with mules abreaſt, without a driver, having a line for reins, as in England; the beam of the plough is long enough to reach to the circular iron, about nine inches under the yoke, to which the mules are collared. The yokes are like thoſe in which oxen are worked, only with collars inſtead of bows. This method, which is very common in France alſo, has both its advantages and diſadvantages; it will be a light draught, when the pitch of the beam is proportioned to the height of the mules, but if the ſhare muſt be raiſed or lowered according to their height, it will be bad both for the land and the animals. To have the line of traction, from the draught to the body of the plough, is not quite correct, but it is much better than the common plough beams, made either too long or too ſhort: in this caſe the length of the beams is aſcertained; but the chief origin and intention of it is cheapneſs. The mould-board of the plough here has no iron on it, and is fixed to the left ſide; the ſhare is double, as if to work with a mould-board on either ſide; this is a great fault; only one handle. I

did its work tolerably. The wheat in ſheaves is yet in the field, but the ſtubble is all ploughed, a narrow ſlip only left, on which the wheat remained: this ſhews good attention to the ſucceſſion of crops.

Prices of Proviſions, &c. at Barcelona.

Bread, 4*ſ.* and a fraction per pound, of twelve ounces.
Mutton, 22½*ſ.* per pound, of thirty-ſix ounces.
Pork, 45*ſ.* per pound, of twelve ounces.

That of the poor people very little leſs; but they buy the ſoldiers' bread, which comes cheaper; they live very much on ſtock-fiſh, &c.

Hams ſometimes 3 or 4 *peſettos*, or ſhillings, per pound, of twelve ounces. Wine, 4*ſ.* or 5*ſ.* the bottle.

Common day wages are 25*ſ.* French; ſometimes riſe to 33*ſ.*; the very loweſt, 22½*ſ.* Stocking weavers earn 33*ſ.*

Cream-coloured oxen in carts, their horns ſawn off to the length of ſix inches, two yoked abreaſt, and one mule before. A pair of good oxen ſell at 25l. Engliſh. Vale from a quarter to half a mile broad.

All the corn in the country is left in the field till it is threſhed, and they ſay it never takes hurt. A hill cut through, thirty feet deep, for the road, and walled on each ſide. The ſea cloſe to us on the right all the way; and the vale I ſpeak of is between that and the hills: ſome of them are ſandy, and planted with vines, which yield per journal four charges, the charge ſelling at 13 or 14 *peſettos*, and a journal for 300 Spaniſh livres; this is the journal, ſelling for 35l. 8s. 9d., and producing about 2l. 14s., very inadequate to the value of the land; there are great quantities of fruit trees of all ſorts.

At Gremata; after which a vale for a mile and a half, or two miles, the ſoil ſandy, and much cultivation. On the hills many vines. Some corn without fallows; it is all cut, but not carried, and the land all ploughed.—Vines.

A wheat ſtubble ploughed up, and the land ſown with buck-wheat, which is now up.

Part of a vale highly cultivated, but a great part waſte, though on the ſame level to the eye, but much ſpoiled by a torrent, for a quarter of a mile broad; it is entirely ruined, yet there is no water now, nor any channel, all being level; in ſuch caſes as theſe, and indeed in moſt others, induſtry, united with good capitals, would remedy the evil. Eight men working a ſandy field, by way of digging with an inſtrument very common here, a ſort of hoe, ſixteen inches long, and nine broad, with a handle ſo ſhort, that the body is bent very much in uſing it. Vale two or three miles broad, and unites with an opening in the mountains. French beans often under maiz, but that crop much thinner, and nothing gotten by it. Some very fine orange-trees, near twenty feet high, large ſtems, and thick round umbrageous heads. All this vale before Maturò is under a very fine cultivation. They have much lucern; and an article of attention I had not before obſerved, was, tubs made on purpoſe for carrying the riddance of privies and urine to their fields.

Hemp yields ten quintals the journal. Vineyards give three, four, and five charges of wine per journal, and ſell for 200 or 300 Spaniſh livres the journal: other lands, not irrigated, from 100 to 150 livres. For above a league vines on ſand; very little other cultivation; the vale is two miles broad; ſells at 150 livres Spaniſh the journal; on the hills, and near the ſea, vines; mountains cultivated imperfectly almoſt to the top; but there is much waſte. Houſes ſcattered every where.

The cultivators are *metayers*, that is, they pay a portion of the crop inſtead of rent: the produce is divided into three parts; two for the farmer, and one for the landlord, in which caſe the farmer is at every expence whatever. Some vineyards are let at from

15 to 40 *peſettos*; I have not met any where in France with vineyards let, for they are all in the hands of the proprietors. Land in general lets from 15 livres to 35 livres.

Come to a great cultivated vale, but no water, or but little; maiz, ſix inches to two feet high, in ſquares, on land from which the corn has been cleared; the account we received. I ſuſpect the higheſt to be previouſly ſown in a bed, and tranſplanted as ſoon as the land was ready to receive it; millet alſo after corn; the ſoil a rich black loam.

Paſs Malgra. Vale two or three miles broad; vines and cultivation. A great deal of fine maiz, called all over Catalonia *Miliæ*. I found the ſame name for it afterwards in Languedoc, where they ſpeak the ſame language as the Catalans. Lets for 15 livres, one with another. Maiz is ſown, grain by grain, after corn; the ſoil a granite ſand. A thick woodland, all incloſed. Pomegranates make very fine thick hedges. Much wood and vines—no watering nor fallows—houſes ſcattered every where—ſoil ſandy, but good. Very bad ploughing—cream-coloured oxen. Incloſures become ſtill thicker. Poplars planted over ſome fields, and vines trained to them, and from one to another: reading accounts of this huſbandry in books, I had formed an idea that it muſt be ſingularly beautiful to ſee feſtoons of vines hanging from tree to tree, but there is nothing either pleaſing or ſtriking in it, and the wine is never good for want of ſun, and owing to its being dripped on by another plant, which robs it alſo of its nouriſhment; corn is ſown under them, which is damaged ſtill more. Broad flat vale, formed of the ruins of granite.

Paſs for ſeveral miles in a vale, where the country has different features. It is all incloſed—much oak—a few vines, trained up trees. Soil bad. Two poor bits of meadow I noted, for they were the firſt I had ſeen bad in Spain. Many fields over-run with ſpontaneous rubbiſh. Maiz and haricots cultivated here together, as in many other quarters. Some ſcattered houſes. Much waſte on gentle hills that have vineyards on them, and would all yield that production, if planted. A ſloping hill of granite ſand, well cultivated. Vines, trained to oaks and poplars, with many fruit trees. The price of wheat here is 15 or 16 *peſettos*, for the $3\frac{1}{2}$ *quarterons*, weighing five and a half quarters, and each quarter twenty-ſix pounds; this is one hundred and forty-three pounds of wheat, coſting $15\frac{1}{2}$ *peſettos*, which will be 50s. the Engliſh quarter. Barley half the price.

Come to a great waſte, ſpreading over many hills, for ſeveral miles; to northern eyes a moſt extraordinary ſcene. It is a thicket of aromatic and beautiful flowering ſhrubs, with very little mixture of any that are common with us. Large ſpreading myrtles, three or four feet high, and covered with their ſweet-ſcented flowers, jeſſamines, bays, and other ſhrubs, with which we crowd our ſhrubberies, are here worſe nuiſances than heath with us, for we ſaw neither ſheep nor goats. View after this a large plain, bounded by mountains, and ſcattered every where with houſes—a good deal of cultivated incloſure; but on entering find much waſte in this plain. Vines now form hedges, and ſurround the fields. Come now to cattle, of which we have hitherto ſeen very little; ſaw ſeveral ſmall flocks of ſheep, moſt of them entirely black, ſome without horns, others with, and curling round the ears. All the oxen cream-coloured, except two, with the necks and end of their tails black; all well made, and in fine order. Large breadth of corn, and ſome fields left apparently to graſs. I ſuſpect fallows.

The country ſtill thickly incloſed, ſome pieces of graſs, and a few of meadow, which are not burned, hot as the climate is. More cattle here than we have yet ſeen. They keep their ſheep and hogs (all black) together, and the girls, &c. who attend them ſpin hemp.

Paſs

Paſs Goronota, and many waſtes for ſome miles on gentle ſlopes; the ſoil good, but covered with aromatic ſhrubs; no cattle ſeen in any of them. Level vale with much culture, and much paſture: many large oaks on old double banks, alſo tall poplars; all incloſed, and like many parts of England, as maize and vines are not here; a thick woodland. In this part the ſoil is a deep, rich, brown, adheſive loam; the corn not carried, but the land ploughed and ſown with French beans. They have peaſe, beans, maiz, hemp, &c. without watering, and, that circumſtance conſidered, the crops are good. The ploughs are drawn by cream-coloured oxen, guided by a line, and without a driver. Some meadows without water, with many quails. They are *metayers*, paying the landlord one-third of the produce, but not of *phang*, which is for oxen; *phang* is their name for clover; and this the firſt time we met with any information about it. It puzzled us much to diſcover what *phang* could be; but I found by accident a plant of *trifolium alpeſtre*, and, ſhewing it to a farmer, found, by his deſcription, that it was clover (*trifolium pratenſe*) beyond all doubt. They were now ploughing a wheat ſtubble, in order to ſow it directly with *phang*. Their culture of it is ſingular, and very good: it is mown for hay once in the ſpring, yielding a fine crop; the land directly ploughed and planted with *monget*, which is their name for fallow-hoeing crops, ſuch as French beans, millet, peaſe, &c. This *monget* is kept very clean, and wheat ſown after it, which is off ſoon enough for a ſecond crop of French beans. A courſe with them is,

1. Maiz.
2. Wheat, and ſown after with clover.
3. Clover and French beans.
4. Hemp and French beans.
5. Wheat and millet.

Vines are here planted in eſpaliers; ſmall poles are laid on pegs driven into poſts, which ſtand at ſix or eight feet aſunder, and the vines trained to them; corn is ſown between the rows; good land, yet waſte join it. Many hedges are planted with the yellow-bloſſomed prickly acacia, which anſwers perfectly well for that purpoſe.

Within four miles of Gerona huſbandry continues good. Trees have vines trained to them. Much cattle, mules, horſes, ſheep, and hogs, kept in the ſtubbles; fine cream-coloured oxen in the ploughs. The ſoil fine deep reddiſh loam. Now reaping a crop of ſquare peaſe, three feet high, ſtout as lupines, with pods like that plant; all here an incloſed woodland. Hemp ſix feet high, and not watered. To the left of Gerona mountain beyond mountain, branches of the Pyrenees, and very high, but ſeemingly a good deal of cultivation on them. Fine rich deep ſoil in the vale before Gerona; the ſame huſbandry: crops of corn very fine, not carried, though all the land quite green with young millet: this extreme confidence in the climate ſhews clearly what it muſt be.

A journal of the vale land ſells for two hundred Spaniſh livres, or 23l. 12s. 6d. lets at 8 livres to 10 livres, that is, 1l. 1s. Engliſh; but none of it is irrigated. I do not tithe either lambs or other live ſtock.

Price of Proviſions at Gerona:

Bread, 3*ſ.* per pound of twelve ounces; and excellent.
Beef, 10*ſ.*
Mutton, 6*ſ.*
Pork, 8*ſ.* per pound of ſixteen ounces.
Cheeſe, 20*ſ.* per pound of twelve ounces.

They

They have no mutton or beef, except what comes from France.

The poor live chiefly on vegetables and a little pork; their labour 20*f.* a day.

Leave Gerona.—Fine maiz, planted thin, with good cabbages under it: this is a ſyſtem which promiſes well, but cabbages here are only for people, and not for cattle. Three meaſures and a half make a journal, and a pair of oxen plough three meaſures a day; buy their oxen in the French mountains at a year old. Their hills are either wood or cultivation, but mixed with part rocky waſte. Croſs ſome hills which contain a great deal of waſte, but ſee a broad valley to the right; all incloſed and well cultivated; to the eye rich; houſes ſcattered.

At Marenia, iron 4*f.* or 5*f.* per pound of ſixteen ounces. The road up a hill; twenty or thirty women giving it a winding direction, by levelling earth; on inquiry, find it is done by the communities, and that they earn nothing; hence it is by *corvees*. Enter a wood of cork-trees, many of them barked half way up; the texture of this tree is remarkable, it ſeems formed of layers of bark, one under another.

The country now generally cultivated; the fields ploughed, but have had a crop. Some well-planted olives, ploughed under. All the corn we ſee is wheat; as to barley, it was cut and threſhed the firſt week in June, and the land ploughed and ſown with ſomething elſe.

From Gerona to Calderoles, three hours and a half, generally cultivated; but waſtes ſcattered, and mountains every where in ſight. The courſe here is,

1. Barley, left to weeds, &c. for catttle.
2. Wheat and millet, or French beans.
3. Oats or barley, and maiz for cattle.

No fallow, or *phang*; French beans are called *phaſols*.

Leaving Calderoles, the country all cultivated; many olives, and under them vines; all well incloſed; no waſte.

Paſs Baſerà: a torrent has here deſtroyed a vale half a mile broad; paſs it by a ferry. Country now neither ſo rich nor ſo well cultivated, as on the other ſide of that town. Maiz planted at ſix feet, and two rows; French beans in the intervals; olives ſcattered, but the maiz very poor under them. Country more poor and ſtoney, yet but few waſtes. Olives and many tall pines. Waſtes with pines; the ſea two miles to the right, and the ridge of mountains in the front, ſeems to end abruptly at it. Many vineyards, and planted with olives; all under culture, and well incloſed with acacia hedges; ſeveral with ditches to them.

The vale of Figuera bounded finely by the mountains; many olives and vines, and a good deal of corn, but neither ſoil nor cultivation equal to what have paſſed; the former is more of a ſtone braſh. Reach Figuera.

The 21ſt left Figuera, and breakfaſted at Jonquieras. Enter the bottom of the mountains very ſoon; paſs through many olive grounds; the trees are large, and ſtand about ſixteen feet aſunder; ſoil good red loam, but ſtoney; no watering. A quart of oil, two and an half pounds of twelve ounces, ſells, retail, for a *peſetto*. Olives bear only every other year. Our guide ſays, he knows a tree in Arragon, which yields from fifty pounds to eighty pounds for a crop. In theſe twelve miles to Jonquieras, vines ſcattered all the way on the hills; ſome few olives; many cork-trees, latterly: much cultivation, but a good deal of waſte alſo. French beans in rows, and ploughed between with oxen. Soil all the way a granite ſand.

The firſt leading feature of the minutes is the immenſe quantity of mountains and other waſtes, which are found in every part of Catalonia. We travelled about three

hundred and forty miles through the province, and may conclude, from what we ſaw, without any danger of being deceived, that not one acre in an hundred is under any ſort of cultivation; in ſuch groſs calculation one would take care to be within the truth; and if I ſaid not one in one hundred and fifty, I believe I ſhould ſtill be on the ſafe ſide of the aſſertion. When the fact is connected with the reputation which the province has of being, next to Valentia, the beſt cultivated, and, without exception, the moſt induſtrious in Spain, concluſions very unfavourable to the ſtate and policy of that monarchy, muſt neceſſarily be drawn by every reader. The advantage of poſſeſſing the ſecond city of the kingdom, a place of great trade, and containing one hundred and twenty thouſand ſouls, is very conſiderable, and muſt have done much to bring the province even to its preſent ſituation. At the ſame time that theſe boundleſs waſtes were offending the eye in every quarter, we could, in no part of Catalonia, condemn the people for want of induſtry; on the contrary, they ſeem very well to merit the character they have gained: the activity which is ſeen through all the towns upon the coaſt, and they are very numerous, and very populous, can hardly be greater in a country ſubmitted to numerous feſtival days by its religion: the fiſhery in all thoſe places is conſiderable, and attended to with an unabating ſpirit. The women and children make lace; and wherever the ſoil is good, or water conducted, cultivation is in a high ſtate of perfection. Even in the interior country, we ſaw every where ſigns of much induſtry; and, amidſt a poverty which hurt our feelings, we generally ſaw ſomething to convince us, that it was not the fault of the poor people that greater exertions were not made. Thoſe interior parts depend entirely on their agriculture; and the height to which they climb the mountains in order to find a ſpot tolerably level for cultivation, ſhews that their minds and bodies are ready for laborious exertions, whenever there is a proſpect of enjoying the reward. With ſo much induſtry among the people to what are we to attribute the waſte ſtate of their country? The inquiries neceſſary for a complete inveſtigation of ſuch a queſtion were not to be made by travellers: a longer reſidence would have been neceſſary, but a few circumſtances ſhould be mentioned, which are probably connected intimately with it.

Firſt, the poverty of the people in the interior country is ſtriking; their towns old, ill built, dirty, and wretched; the people ill dreſſed, and generally deficient in the wealth beſt adapted to ſuch a country, cattle: in the higher Pyrenees this is not ſo much the caſe; they have cattle, and are in every reſpect in a better condition, owing to the plenty which great commons give in a country of good paſturage, and where wood is in profuſion. The number of ſheep we ſaw in general was not the twentieth part of what the waſtes, bad as they are for that animal, would maintain; and that of goats ſo ſmall as to indicate the ſame thing ſtrongly. This poverty not being the effect of a want of induſtry, muſt reſult from a government inattentive to their intereſts, and, probably oppreſſive; and from a total want of the higher claſſes reſiding amongſt them. Till we came to the rich country near Barcelona, that is to ſay, in about two hundred miles, we ſaw nothing that had the leaſt reſemblance to a gentleman's country ſeat; thoſe who have eſtates let *in it are abſent;* thoſe we heard of live at Barcelona; and the whole country is thus abandoned to the very loweſt claſſes, and the wealth and intelligence which might contribute to its improvement, diverted into diſtant and very different channels; this is a great misfortune to the people, and which will long contribute to keep things in their preſent ſtate. To the ſame cauſe it is owing, that the roads, ſo eſſential in the improvement of a country, are left in a ſtate which precludes the uſe of wheel-carriages; which, with the unnavigable ſtate of all the rivers, except for rafters of timber groſsly put together, cuts off that ſyſtem of reciprocal purchaſe and ſale,

ſale, that interior commerce, which is the beſt a country can poſſeſs. Theſe are alſo evils which the reſidence of men of fortune is the moſt likely to correct, and much above the power of peaſants and mountaineers. With all theſe diſadvantages there are ſtill circumſtances which make it ſurpriſing that more land is not cultivated. Vines and olives ſucceed very well on the pooreſt and moſt arid ſoils; their growth and luxuriance in ſpots ſurrounded on every ſide with waſtes, and in ſoils not better, yield a conviction, which leaves no doubt, that the adjoining lands would, if planted, give a ſimilar produce. The profit of doing it will not be ſuſpected, if the revenue and value of cultivated lands on compariſon with the waſtes be conſidered. Two points here force themſelves on our notice; firſt, the want of capital for undertaking the work; and, ſecondly, the waſte being in all probability in poſſeſſion of abſent landlords, who will not give ſufficient encouragement to others to do what they neglect doing themſelves.

Where cultivation climbs up the mountain ſides, it is by ſmall proprietors, who purchaſe of the communities of the pariſhes the property of the land; wherever the ſoil is in hands that will ſell juſt the portion which is in the power of a man to buy, great exertions are ſure to be the conſequence. There is no ſpur to induſtry ſo great as the poſſeſſion of a piece of land, which, in a country where the means of ſubſiſtence are contracted for want of more diffuſive and more various employments, is the only comfortable dependence of a man, who wiſhes to be the father of a family. The pariſh that will ſell a waſte at a moderate price, will be almoſt ſure to ſee it cultivated; but the great lord, who rarely, or never, ſells any of his property, unleſs ruin forces him to ſell the whole, is equally ſure of perpetuating the deſerts, which are the diſgrace of his country. He would let them, and perhaps upon advantageous terms; but it demands conſiderable capitals, and a very enlightened ſtate of agriculture, for ſpeculations of that ſort to take place; the only capitals, which can be found in Catalonia, for ſuch a purpoſe, are the hands of men willing to work; aided, perhaps, by ſome little ſavings, which have originated from the view of waſtes that are to be purchaſed. All that has been done, and it is much in ſome diſtricts, is to be traced clearly to its origin.

That theſe obſervations are juſt, will be confirmed by the prices of all the neceſſaries of life in that province; they have nothing very cheap; every article of conſumption is ſomewhat dearer than in France; and it is more than once noted, that all the meat they eat comes from that kingdom. Their mules are bred in France, and great imports of cattle and ſheep are common. This is a direct premium upon every ſpecies of rural induſtry, and its not having operated greater improvements, muſt be owing to the cauſes on which I have touched.

To cultivate their waſtes, to ſpread irrigation wherever it is poſſible to carry it, are the two firſt objects in Catalonian improvement; all others are inferior; they have, however, ſome which ought not to be neglected. Their wine and oil are objects of the greateſt importance; for it is by theſe, probably, that all the lower waſtes ſhould be improved, which are not capable of irrigation; to improve the manufacture of theſe two articles, in ſuch a manner as to increaſe the demand for them, would be one great means of accelerating the cultivation wanted; they are both bad; the wine is thick, muddy, and poiſoned by the borachio; and the oil is generally rancid; both would otherwiſe be excellent; to remedy theſe defects, and force thoſe commodities, by their merit, into commerce, would tend powerfully to enrich the province; and to enrich it in the very beſt method, by one, which would, at every ſtep, accelerate its improvement. Wool is another commodity, which is of conſiderable value, and might be produced in an infinitely greater quantity than at preſent.

The reader will not expect from a traveller, who throws his ideas on paper amidſt the movements of a journey, that correct attention which leaves nothing untouched; I attempt no more than to glance at ſome prominent features, and to delineate them roughly; to draw into one point of view, the concluſions which ought to be the object of all uſeful travels, it would be neceſſary to ſee much more, to reſide longer, and to travel with greater advantages than I poſſeſs. This little journey has been very far from affording ſuch materials, but it has not to me been barren; it has removed many falſe ideas from my mind, which the writings of men, who have either been inattentive to, or ignorant of agriculture, had placed there, relative to this province; and I know better how to appreciate the praiſes or condemnation which are given of this or other countries, in ſimilar climates.

There are many perſons who travel for enjoying the beauty of proſpect; and there are others, who ſeek for a reſidence better adapted than their own, to their health or their fortune; to ſuch I will add a few words:—To the taſte of a man that is fond of a country in a northern climate, there are few objects more pleaſing to the eye, or more refreſhing to the imagination, than the natural landſcape ſcenes of a well-cultivated and well-peopled country. Theſe have, in England, features that charm and inſtruct. Inequalities of country, not too abrupt; woods that preſent rich maſſes of ſhade; rivers that offer the contraſt of their ſilver boſoms, gliding gently through vales of conſtant verdure, which are neither hurt by their rapidity, nor rendered marſhy by their ſluggiſhneſs; incloſures which mark the value and the culture of the ſoil; and ſcattered habitations of the poor clean and comfortable, mixed with the houſes of farmers, in a ſtate of eaſe and proſperity; and with the ſeats of gentlemen, who find ſociety and liberal pleaſures, without deſerting the fields which give them their ſupport, for the profuſion and waſte of a capital. No philoſophical eye can view ſuch a ſcene without pleaſure, nor contemplate it without inſtruction. Such a ſcene is not to be met with in Catalonia; the latitude which ſpreads over their heads a clear expanſe of blue, which lightens up in their heavens a blazing ſun, with rays of which we have no feelings, which bids the perfumes of the eaſt breathe over their waſtes, and gives to their gardens a profuſion of moſt delicious fruits, forbids it. Infinitely the greater part of the province is rock or mountain, without verdure, and without other wood, than ever-green oaks, olives, or pines; and no where, except in the Pyrenees, with any maſſes of ſhade that give effect to the proſpect. The only verdure in the country, tolerably durable, is that of the vineyards. Great waſtes are covered with ſhrubs, which, however beautiful when detached, have very little effect in a general proſpect. To look for neat cottages, or good farm-houſes, is to look in vain; and to find the landlords of the country you muſt go to Barcelona and Madrid. The deficiency of verdure deſtroys half the idea of rural beauty; the eye, dazzled with the unvarying ſplendor of the ſolar beams, and tired with wandering over arid heaths, aches for cooler and more quiet ſcenes, and languiſhes to repoſe on the verdant mead. When watered, where alone there could be verdure, all is a crowded ſcene of trees, and corn, and hemp; of glorious fertility, but forming the good feature of a landſcape only when looked down upon from an eminence immediately above it. Hence, I own, that in reſpect of beauty of proſpect, I muſt prefer many parts of France, and more in England, infinitely to any thing I ſaw in Catalonia, a country whoſe moſt ſtriking features are its rocks.

I take the climate to be equal to any thing that is known in the world; I was there in the hotteſt ſeaſon of the year, and travelling twelve and fourteen hours a day, yet bore it without any ſuch oppreſſion as could give an idea of its ever being inſupportable; and both men and women ſtood their field buſineſs through the day, except two hours,

which they take for repoſe. Suppoſing, however, that July and Auguſt are eſteemed much too hot, ſtill the reſt of the year muſt, from every circumſtance we heard, be delicious—they ſpoke with rapture of the pleaſantneſs of the month of May; and no doubt but the winter muſt be a charming ſeaſon, where ſuch vegetables as green peaſe are gathered through every month of it, from the open fields. In regard to wholeſomeneſs for invalids, one circumſtance ſhould be conſidered, which may be applied equally to all watered arable lands: I ſhould conceive, that they muſt of neceſſity, in ſo hot a climate, be very unwholeſome; and little better than rice-grounds, which are known every where to be peſtiferous. The land is kept conſtantly watered, it is therefore little better than an earth ſponge, or maſs of mud; innumerable fibres of vegetables are mixed with it; the heat, the moiſture, and the rich ſoil form a putrid fermentation, which gives health and luxuriance to vegetables, but muſt fill the air with phlogiſtic effluvia, I ſhould apprehend far from wholeſome to the human body. This is a conſideration for phyſicians, and for thoſe whom they ſend to ſouthern climates.

Irrigation.

THE proſpects down the vale of Aran beautiful; it is without fallows, fine hemp inſtead of them. Look down on the town of Eſteredano, around which culture riſes pretty high up the mountains. All the corn cut is reaped and bound in ſheaves.—Walnuts. Deſcend into the vale.—Figs. Watered meadows. Ray-graſs predominates; much common clover, white clover, trefoil, vetches, &c. A cauſeway for irrigation acroſs the vale; the meadows are uncut, and have two and a half tons per acre on an average; the corn all through three quarters an acre. Paſs a rich flat common; part of this vale fed by horſes, hogs, mules, aſſes, and a few oxen.

Advancing, what meadows there are are well watered; as are French beans, hemp, and a ſmall quantity of lucern.

Leave Poeblar; they have lucern, but not good, the gardens are all watered; mulberries; price of ſilk this year 18 livres the pound. Cultivation all around among the olive-trees; but it is corn one year and fallow another. Croſs the river, which is here ſixty yards wide. Wheels for raiſing the water of it into the gardens, ten or twelve feet high; they are of a very ſimple conſtruction, ſomething like the common water-wheels of a mill, but made very light; the fellies of the wheel are hollow in diviſions, taking the water in through holes at equal diſtances, and as the ſtream turns the wheel it delivers the water out of the ſame holes at the top of its revolution into a trough, which conducts it where wanted; it is cheap, ſimple, and effectual. Many peach-trees ſcattered about the gardens, &c. Mount the hills; paſs two large tracts of above one hundred acres, deſtroyed by the torrents. Great quantity of pudding-ſtones. The mountains around are of intereſting and bold features. The country in general here has a great mixture of cultivation and waſte; it is for ſome ſpace pleaſing enough to the eye, but the produce is, I believe, very low; we ſaw many oats, and ſcarcely any that will produce more than a quarter an acre. They have no meadows; and I ſhould obſerve, that our mules have not found ſuch a thing as hay; ſtraw and barley are the food; in all thoſe ſpots which would give graſs, corn and legumes are ſown, as more neceſſary and more valuable; and this, I am told, is the caſe over all Spain, lucern excepted.

Near Monte Schia—they have here poor crops of flat barley: of water, they know well the value, a ſpring of any account being carefully conducted into a reſervoir, and let out at ſeven in the morning and at night to water.

Advancing—there is ſome good hemp, watered; and I ſee enough of the country to find that the water is all in all; where that is to be conducted, they get crops that pay well; but where no water, they have not the power or the knowledge to turn the ſoil, however good it may be, to a profitable account; fallow the only effort, and the ſucceſs every where miſerable.

Croſs a fine ſtream with many acres under it, yet no watering; the reaſon I cannot tell, unleſs the land is common; if ſo, it is eaſily explained.

The ſoil ſtony; the large, of the pudding claſs; but in the midſt of this arid wretched deſert, come to a ſpring, which riſes out of the earth into a ſmall reſervoir, and is immediately uſed for irrigation; maiz, hemp, cabbages, beans, and all fine; the contraſt ſhews the aſtoniſhing effect of water, and that in this climate the ſoil is the leaſt object.—the ſun and water do the whole.

Paſſing Paous; every thing changes the features; the vale, on compariſon with thoſe we have ſeen, is wide, and alſo flat, and water plentifully conducted in canals, which paſs every quarter, ſo as to let into the field of every proprietor; having paſſed above one hundred miles of dreary mountain, this vale, ſo great was the contraſt, had the appearance of enchantment; the care and attention given to irrigation cannot be exceeded. The land is prepared for it, by levelling with a nicety as curious as for making a bowling-green, and this (conducting the water excepted, which is common to every one), is the only expence: this general level is divided into oblong beds, from ſix to eight feet wide, by little ridges of fine mould, drawn up nicely with a rake every time the ground is ſown, in order that the water may not ſpread over too much at once, in which caſe, the irrigation would be unequal; there would be too much of a current at the part where the water enters, a circumſtance of no great importance in watering graſs land, but which would be miſchievous in arable; ſmall trenches take the water from the carrier canals, and paſſing by the ends of thoſe beds, the farmer opens them at pleaſure to diſtribute the water where wanted. As ſoon as the land is ſown it is watered, and periodically till the plants are up; moderately while they are young; but every day, and ſometimes twice a day, when full grown: the effect is ſurpriſing, and infinitely exceeds that of the richeſt manures that can be ſpread upon any land. The rapidity of vegetation is ſo great, that there are but few crops, which demand all the ſummer for coming to perfection; I believe hemp is the only one; that plant is now five to ſeven feet in height, and of ſo thick a luxuriance, that nothing can be imagined finer. The rye ſtubbles are ploughed and ſown with French beans, which are up and watered. After hemp wheat is the crop.

Watered maize here, ſeven to nine feet high. Every time we ſee any irrigation, we are ſtruck more and more with the importance of water, even on ſoils which are apparently mere rock, and on the moſt arid deſerts, it gives at once the utmoſt luxuriance of vegetation. Vines and olives, however, ſtand in no need of it, but thrive admirably on the drieſt ſoils without it: not one acre, however, in twenty, is planted with them that might be.

Come to more watered grounds; gardening and huſbandry mixed; peaches; apples; ripe pears; pomegranates in the hedges, as large now as walnuts in the ſhell; onions and lettuces in great plenty. Some watered lands have been ſold at 1300 livres the journal.

Near Martorelle is a fine irrigated valley; French beans, ſeven feet high. Good lucern, cut three or four times a year; onions, cabbages, and lettuces; but the hemp, every where a principal crop, not great. The land all formed into the beds for watering; which I have already deſcribed.

Exceeding fine hemp, watered. Maiz thick, and in ear. Many fine and tall poplars by the river.

They are now (July) ploughing their ſtubbles for French beans. Their courſe is,

1. Hemp.
2. Wheat; and after wheat, French beans.

Three crops are therefore gained in two years. The products good. Very fine mulberries. A journal, which is here alſo about an Engliſh acre, of rich land in the vale, not watered, ſells for 500 livres: watered, for 1000 livres.

Leaving Barcelona, enter immediately an extraordinary ſcene of watered cultivation, and which muſt have given the general reputation to the province. Nothing can well be finer. The crops in perpetual ſucceſſion—and the attention given to their culture great. Not the idea of a fallow; but the moment one crop is off, ſome other immediately ſown. A great deal of lucern, which is cut four, five, ſix, and even ſeven times in a year; all broadcaſt, and exceedingly thick and fine, from two and a half to three feet high, when cut. It is all watered every eight days. We meet many mule loads of it going into the town, each four hundred and fifty pounds, or four quintals and a half, which ſells for 4 *peſettos*, or near 4s. Engliſh; ſuppoſe it 4s. for five hundred pounds, it will not be difficult to calculate the produce of an acre. All I ſaw would yield ten tons, green, per acre, at each cutting, and much of it a great deal more; let us ſuppoſe five cuttings, or fifty tons per acre, at 16s. a ton, this is 40l. ſterling per acre. It is to be remembered that the growth we ſaw was the third, perhaps the fourth, and that the firſt and ſecond are in all probability more conſiderable, it will not, therefore, be thought any exaggeration to calculate on five ſuch. I by no means aſſert that lucern yields always, or generally ſo, as I ſpeak only of what I ſee. I have very little doubt, however, but this is the amonnt of that portion, which is thus cut and ſold to Barcelona; poſſibly one-third, certainly one-fourth is to be deducted for the expence of carriage; this is the moſt difficult part of the calculation, for it depends on how many times the mule goes in a day, which muſt alſo depend on the readineſs of ſale, and other circumſtances. The profit is, however, amazingly great. All the other lucern I have any where ſeen ſinks, in my idea to nothing, on compariſon with the vaſt and luxuriant burthens given by theſe watered grounds. The fineſt crops I have known in England are drilled, but there is a fallacy to the eye in the drilled crops, in proportion to the diſtance of the rows; they appear thick while they are really thin, but in broadcaſt ones, which ſatisfy the eye, there is no deception; and theſe immenſe burthens, through which the ſcythe is with difficulty moved, produce more at one cutting than two feet drills would at three, with the advantage of the herbage being finer and ſofter. But weeds in England and Catalonia are two very different things; it well deſerves, however, with us, a better trial than it has yet generally received; I have viewed broadcaſt crops, particularly Rocque's, on a very rich garden ſoil, and Dr. Tanner's, on a common turnip loam, which, though not to be named with the Spaniſh, were certainly encouraging.

Hemp, through all theſe watered lands, is the predominant crop, it is ſeven feet high, and perfectly fine; ſome of it is already harveſted. I am ſorry to ſee that the watered part of the vale is not more than a mile broad. Indian fig, called here *figua de maura*, grows ſix or ſeven feet high, very branching and crooked, the arms at bottom as thick as the thigh of a common man; thoſe and many aloes in the hedges. Every garden or farm has a ſmall houſe, with a reſervoir for water, which is filled in moſt by a water wheel, with jars around the circumference. The gardens between Barcelona and the fort, and alſo within the walls, are watered in the ſame manner; the water is let into

every little bed, in the ſame way as I have already deſcribed. They are crowded with crops, and kept in moſt beautiful order; thoſe in and cloſe to the town, ſcattered with mulberry-trees. But in the diſtrict of which I am ſpeaking at preſent, among the hemp and lucern, neither vine, olive, nor mulberry. Theſe watered lands belong generally to proprietors who live in Barcelona, and are let at 30 to 40 Spaniſh livres the journal.

The valley, in its wideſt part is three miles broad. Here it lets at 34 Spaniſh livres a year the journal, and ſells from 600 livres to 1000 livres; each of theſe livres being about 54/.: (1000 Spaniſh livres makes 2700 French ones.) Taking the medium, or 800 livres, and the French livre at 10½d. this makes the price of a journal 90l. 2s. 6d.; and the rent of it 4l. The groſs rent of the land, therefore, pays nearly 4½ per cent.; but whether this is clear rent, the tenant paying all taxes, and doing the ſmall repairs of his houſe, &c. or whether there are deductions on theſe accounts, are queſtions which were neither forgotten nor reſolved. To ſhew the quick ſucceſſion of their crops, they have corn in ſtocks on the borders of ſome of the fields, and the land ploughed and ſown with millet, which is already nine inches high. Many bleaching grounds.

Advancing- the irrigated land lets from 24 to 40 Spaniſh livres: that not irrigated, at 15 livres. Water, therefore, here more than doubles the rent of the land; and in other places we have found the difference yet greater. The ſoil all the way a red and brown deep friable loam, with a ſufficient adheſion for any crops. They ſow French beans after hemp, and then ſow wheat.

At Ballalo, two hours from Barcelona, we meet with the firſt vineyards, but the hills here come down to the ſea; and where they do not, the vale is not more than half a mile wide. Lycium in the hedges; ſome few mulberry-trees. Oranges in the gardens, a few palm-trees, with vines around them.

A journal of watered hemp produces from 10 to 12 quintals; if not watered, the product much inferior; the price 14 to 17 Spaniſh livres the quintal, or 35s. Engliſh, which makes 19l. 5s. an acre. This is, however, to be underſtood of a very fine acre. The mountains are at half a mile diſtant, and partly cultivated to the top. All the way incloſed, and the men mending gaps in their hedges.

Every ſcrap of flat land well watered, from wells and reſervoirs; the hill covered with vines.

Land, near Canet, well watered, ſells for 500 Spaniſh livres the journal; vineyards for 300 livres. They give, in good years, to twelve charges. Unwatered land, 100 to 150 livres.

Enter a flat vale, half a mile broad, not watered. Hemp, very poor; maiz, ſeven feet high. Vineyards, under regular plantations of olives; corn cut, in ſtooks, and the land ploughed. A journal ſells for 200 livres, and further on, when irrigated, for 1000 livres, which is an aſtoniſhing difference.

While the mountains and waſte parts of the province preſent an unfavourable proſpect, the watered diſtricts are, on the contrary, ſcenes of moſt exuberant fertility. To a perſon, from the north of Europe, there can hardly be a more ſtriking ſpectacle than the effect of watering in theſe ſouthern climates; it converts an arid ſtony waſte, which would yield nothing but vines and olives, and on which every ſort of grain would hardly return the ſeed, at once into fields, pregnant with the richeſt harveſts; on ſuch ſoils, it gives almoſt the whole value of the land; and on the richeſt it raiſes it, at the leaſt, double; and in ſome inſtances, five times. It enables the cultivator to have a ſucceſſion of crops, more important than any thing we know in the north. The reaping one crop is but the ſignal for immediately putting in another; in doing which, they exert themſelves

ſelves with the utmoſt activity; ploughing univerſally as ſoon as the corn is cut; and are by this means enabled to have conſtantly two crops a year. The extreme fertility of theſe lands has, however, led many travellers into great or ignorant exaggerations; they have aſſerted that the land yields many crops at the ſame time, one under another, which is both true and falſe. It is fact, that corn, wine, oil, and ſilk, are produced by the ſame field, in ſome few inſtances; but it is not from hence to be concluded, that the goodneſs of the land, or the importance of irrigation is at all ſhewn by that circumſtance. The fact is, that it is impoſſible to raiſe one crop under another, without loſing in one nearly as much as you gain in the other; the olive, being a large tree, cultivation may be carried on under it, but the crop gained is poor, and ſhews that exactly in proportion to the ſhade is the injury ſuſtained by the produce which is ſhaded. If the trees are thick, the corn is hardly worth reaping; it is the ſame in other caſes, and I was well convinced, from viewing their grounds with this deſign, that the ſoil can carry, profitably, but one crop at a time; ſeveral may be crowded on it, but nothing is gained; with graſs under trees, this is not the caſe ſo much in a hot climate; but even graſs is damaged, and it is not the queſtion at preſent, as they have none. A country to be ſupported, and in a hot climate, without meadows or paſtures, ſounds very ſtrange to Engliſh ears, and it is among the curious circumſtances of this part, and I am told of the reſt of Spain. If they applied to graſs the land that is proper for it, they could not poſſibly have bread to eat; ſtraw here is given inſtead of hay, and entirely ſupplies its place, and the oxen and mules, which we ſaw, did not ſhew in the leaſt, by their looks, any deficiency in nouriſhment. Lucern is not at all common through the interior part of the province, and where they cultivate it, it is uſed green. Maiz is ſometimes ſown merely for its herbage, as it might be, I believe, profitably in England, late in the ſpring, to avoid our froſts; it is one of the moſt nouriſhing plants in the world.

The conſequence of water being ſo apparent in the province, I could not but attend particularly to their exertions in conducting it, and I concluded that not one acre in twenty, perhaps in forty, is watered, that might be. In the flat vales where canals of irrigation are made, at a ſmall expence, a very good, though by no means a complete uſe is made of them; but on the declivities of the mountains, it is neceſſary to erect a mound of ſolid maſonry acroſs the river, and to cut the canal partly out of rocks, and to ſupport it by walls of ſtone, as I have ſeen in France; and having thus diverted a large portion of the water of a river, to carry it on its level, along the ſide of the mountain as far as it will go; ſuch exertions demand a much greater capital than is to be found upon the lands of Catalonia: it could be done only by a great lord, who knew the importance of ſuch undertakings, who reſided on his eſtate, and whoſe income was ſpent in ſomething elſe than the taſte and pleaſures of a capital. But leaving ſuch exertions to individuals, who either have not the money or not the will to employ it, is to perpetuate waſtes. It is the King only who can make thoſe efforts; a monarch who ſhould be determined to improve his kingdom would preſently find the means of doing it. The importance of water is ſo well known, that if a canal is made to conduct it, the proprietors or farmers of the lands below would readily and ſpeedily make uſe of it, paying proportionably for the quantity they took; this is the ſyſtem in Lombardy, and the effect is great. It would be the ſame in Catalonia, but the capital for the great work of the canal, muſt probably be ſupplied by the king, if not the whole, at leaſt a conſiderable portion. Such money ſhould be lent to undertakers at a moderate intereſt. Exertions of ſuch a nature, with a proper general attention given to theſe objects, would make them faſhionable among the great lords of the kingdom, and fertile provinces would ſoon be created out of barren and deſolate waſtes. Arbitrary power has been exerted for ages in efforts of barbarity, ignorance,

ignorance, and tyranny; it is time to ſee it employed in works that have the good of mankind for their aim. A beginning, and a very good one, is made in the conſtruction of ſome great roads, on a ſcale of true magnificence, which is never exhibited with ſuch effect as in works of public utility; and whenever the importance of cultivation is well underſtood in Spain, and the right means of advancing it clearly analyzed, irrigation will then receive an attention that has not hitherto been given. Such is the neceſſity of water, for various productions in this climate, that rivers ought to be no more than infinitely multiplied channels, and collected in one ſtream only, as a reſervoir for freſh and repeated deviations.

Sheep.

On the northern ridge of the Pyrenees, bearing to the weſt of , are the paſtures of the Spaniſh flocks. The ridge is not, however, the whole; there are two other mountains in a different ſituation, and the ſheep travel from one to another as the paſturage is ſhort or plentiful. I examined the ſoil of theſe mountain paſtures, and found it in general ſtony; what in the weſt of England would be called a ſtone braſh, with ſome mixture of loam, and in a few places a little peaty. The plants are many of them untouched by the ſheep: many ferns, narciſſus, violets, &c.; but burnet *(poterium ſanguiſorba)* and the narrow-leaved plantain *(plantago lanceolata)* were eaten, as may be ſuppoſed, cloſe. I looked for trefoils, but found ſcarcely any: it was very apparent, that ſoil and peculiarity of herbage had little to do in rendering theſe heights proper for ſheep. In the northern parts of Europe, the tops of mountains half the height of theſe, for we were above ſnow in July, are bogs; all are ſo which I have ſeen in our iſlands, or at leaſt, the proportion of dry land is very trifling to that which is extremely wet; here they are in general very dry; now a great range of dry land, let the plants be what they may, will in every country ſuit ſheep. The flock is brought every night to one ſpot, which is ſituated at the end of a valley on a river, and near the port or paſſage of Picada: it is a level ſpot ſheltered from all winds. The ſoil is eight or nine inches deep of old dung; not at all incloſed, and, from the freedom from wood all around it, ſeems to be choſen partly for ſafety againſt wolves and bears. Near it is a very large ſtone, or rather rock, fallen from the mountain. This the ſhepherds have taken for a ſhelter, and have built a hut againſt it; their beds are ſheep-ſkins, and their doors ſo ſmall that they crawl in. I ſaw no place for fire, but they have it, ſince they dreſs here the fleſh of their ſheep; and in the night ſometimes keep off the bears by whirling firebrands: four of them belonging to the flock mentioned above, lie here. Viewed the ſheep very carefully, and by means of our guide and interpreter, made ſome inquiries of the ſhepherds, which they anſwered readily, and very civilly.

A Spaniard, at Venaſque, a city in the Pyrenees, gives 600 livres, French, (the livre is 10½d. Engliſh,) a year, for the paſturage of this flock of two thouſand ſheep: in the winter he ſends them into the lower parts of Catalonia, a journey of twelve or thirteen days; and when the ſnow is melted enough in the ſpring they are conducted back again. They are the whole year kept in motion, and moving from ſpot to ſpot, which is owing to the great range they every where have of paſture. They are always in the open air, never houſed, or under cover, and never taſte of any food but what they can find on the hills.

Four ſhepherds, and from four to ſix large Spaniſh dogs, have the care of this flock; the latter are in France called of the Pyrenees breed; they are black and white, of the ſize of a large wolf; a large head and neck; armed with collars ſtuck with iron ſpikes;

no wolf can ſtand againſt them; but bears are more potent adverſaries; if a bear can reach a tree he is ſafe, he riſes on his hind legs, with his back to the tree, and ſets the dogs at defiance. In the night the ſhepherds rely entirely on their dogs; but on hearing them bark, are ready with fire-arms, as the dogs rarely bark if a bear is not at hand. I was ſurpriſed to find that they are fed only with bread and milk. The head ſhepherd is paid 120 livres a year wages, and bread; the others 80 livres and bread. But they are allowed to keep goats, of which they have many, which they milk every day; their food is milk and bread, except the fleſh of ſuch ſheep or lambs as accidents give them. The head ſhepherd keeps on the mountain top, or an elevated ſpot, from whence he can the better ſee around, while the flock traverſes the declivities. In doing this, the ſheep are expoſed to great danger in places that are ſtony; for by walking among the rocks, and eſpecially the goats, they move the ſtones, which, rolling down the hills, acquire an accelerated force enough to knock a man down, and ſheep are often killed by them. Examine the ſheep attentively. They are in general polled, but ſome have horns; which in the rams turn backwards behind the ears, and project half a circle forward; the ewes horns turn alſo behind the ears, but do not project; the legs white or reddiſh; ſpeckled faces, ſome white, ſome reddiſh; they would weigh fat, I reckon, on an average, from fifteen pounds to eighteen pounds a quarter. Some tails left long. A few black ſheep among them; ſome with a very little tuft of wool on their foreheads. On the whole, they reſemble thoſe on the South Downs; their legs are as ſhort as thoſe of that breed; a point which merits obſervation, as they travel ſo much and ſo well. Their ſhape is very good; round ribs, and flat ſtrait backs; and would with us be reckoned handſome ſheep; all in good order and fleſh. In order to be ſtill better acquainted with them, I deſired one of the ſhepherds to catch a ram for me to feel, and examine the wool, which I found very thick and good of the carding ſort, as may be ſuppoſed. I took a ſpecimen of it, and alſo of a hoggit, or lamb of laſt year. In regard to the mellow ſoftneſs under the ſkin, which is a ſtrong indication of a good breed, with a diſpoſition to fatten, he had it in a much ſuperior degree to many of our Engliſh breeds, to the full as much ſo as the South Downs, which are, for that point, the beſt ſhort-woolled breed which I know in England; the fleece was on his back, and weighed, as I gueſſed, about eight pounds Engliſh; but the average, they ſay, of the flock, is from four pounds to five pounds, as I calculated by reducing the Catalonian pound of twelve ounces, to ours of ſixteen ounces; and is all ſold to the French at 30*ſ.* per pound French. This ram had the wool of the back part of the neck tied cloſe, and the upper tuft tied a ſecond knot, by way of ornament; nor do they ever ſhear this part of the fleece for that reaſon; we ſaw ſeveral in the flock with this ſpecies of decoration. They ſaid that this ram would ſell in Catalonia for 20 livres. A circumſtance which cannot be too much commended and deſerves univerſal imitation, is the extreme docility they accuſtom them to; when I deſired the ſhepherd to catch one of his rams, I ſuppoſed he would do it with his crook, or probably not be able to do it at all; but he walked into the flock, and ſingling out a ram and a goat, bid them follow him, which they did immediately, and he talked to them while they were obeying him, holding out his hand as if to give them ſomething. By this method he brought me the ram which I caught and held without difficulty.

The mountain paſtures belonging to the Spaniards, not uſed by themſelves, they let to the owners of large flocks who bring them from the lower part of Catalonia, as with the French mountains; theſe flocks riſe to four thouſand ſheep; the rent in general being from 5*ſ.* to 7*ſ.* a head, for the ſummer food. Every inhabitant poſſeſſes cattle, which he keeps in the common mountains in what quantity he pleaſes; but others, who

do

do not belong to the pariſh, pay 5*ſ.* to 7*ſ.* a head for the ſheep, and 10*ſ.* for a cow; which diſproportion they explain by ſaying, that ſheep muſt have a much greater range.

They have good ſheep in various parts of Catalonia, but all are ſent to Saragoſa or Barcelona.

The mountains and waſtes in ſome parts have no ſheep; only goats.

Croſs great waſtes, which in other countries would be ſheep-walks; but none here; for five-ſixths of the ſpontaneous growth are aromatic plants.

See two ſmall flocks of ſheep, exactly like thoſe in the Pyrenees, deſcribed the firſt day of this journey.

A ſmall flock of ſheep, that give five pounds or ſix pounds of wool each.

Several ſmall ſheep-folds.——Such notes as theſe ſhew how few they are, on compariſon of what they ought to be.

In travelling over the lower mountains, after quitting the higher Pyrenees *, the deficiency of ſheep ſtruck me very much; the climate is too dry to think of a luxuriant vegetation of graſs; but if the roſemary, lavender, and other aromatic uſeleſs plants were deſtroyed, and the land, by cultivation, properly adapted, was to be laid down to ſuch plants as would feed ſheep, fine paſtures might not be gained, but much valuable ſheep-walk would be created, and the quantity of wool increaſed an hundred fold. Such a ſyſtem would unite well with olives, which might be thinly ſcattered over ſuch improvements. To import immenſe quantities of ſheep from France, and to take no ſteps to increaſe them at home, is a blind conduct, eſpecially when it is conſidered, that in a proper ſyſtem, they cannot be increaſed without being at the ſame time, the means of improving freſh land.

Produce of the Kingdom of Valencia in 1787.

	Reals de Vellon.	Engliſh Money. £.	s.	d.
Silk, 2,000,000 lb. at 60 *reals*,	120,000,000	2,000,000	0	0
Hemp, 25,000 *quintals*, at 160 *reals*,	4,000,000	66,666	13	4
Flax, 30,000 *quintals*, at 200 *reals*,	6,000,000	100,000	0	0
Wool, 23,000 *quintals*, at 160 *reals*,	3,680,000	61,333	6	8
Rice, 140,000 *cargas*, at 150 *reals*,	21,000,000	350,000	0	0
Oil, 10,000 *quintals*, at 180 *reals*,	1,800,000	30,000	0	0
Wine, 3,000,000 *arrobas*,	84,000,000	1,400,000	0	0
Dry raiſins, 60,000 *quintals*, at 40 *reals*,	2,400,000	40,000	0	0
Figs, 60,000 *quintals*, at 32 *reals*,	1,920,000	32,000	0	0
Dates and palms,	1,200,000	20,000	0	0
		£ 4,100,000	0	0

There is no line of boundary to be fixed, with any preciſion, to the Pyrenees; I am inclined to think all the mountains we ſaw, Montſerrat perhaps excepted, are branches of that ſtupendous chain, uniting ome direction. The whole mountainous part of the province, that is, eighteen-twentieths of it, is pro- y the Pyrenees.

Prices at Madrid, 1788.

	Average.	Eng. Money. s.	d.
Beef, 14 to 15 *quartos* per lb.	15 *quartos.*	0	3¾
Veal, 24 to 30 *quartos* per lb.	27	0	6¾
Mutton, 15 *quartos* per lb.	15	0	3¾
Freſh pork, 15, 17, to 20 *quartos* per lb.	17	0	4¼
Salted pork, 17 to 20 *quartos* per lb.	17	0	4¼
Ham, 18 to 22 *quartos* per lb.	20	0	5
Tallow Candles, 15 *quartos* per lb.	15	0	3¾
Soap, 16 *quartos* per lb.	16	0	4
Butter (Mantica de Flandes), 8 *reals* per lb.	8 *reals.*	2	8
Goat's milk, 6 to 7 *quartos* per *el quarto*,	7 *quartos.*	0	1¾
Mancha cheeſe, 18 *quartos* per lb.	18	0	4½
Turkey, 12, 20, to 45 *reals* a piece,	25 *reals.*	8	4
Fowl, 8, 11, to 14 *reals* a piece,	11	3	8
Hare, 5 to 9 *reals* a piece,	7	2	8
Rabbit, 5 to 8 *reals* a piece,	6	2	0
Partridge, 4 to 8 *reals* a piece,	6	2	0
Pigeons, 5 to 6 *reals* a piece,	5	1	8
Eggs, 21 to 42 *quartos* a dozen	31 *quartos.*	0	7¾
Potatoes, 4 to 6 *quartos* per lb.	5	0	1¼
Garvanzos (large peaſe), 10 to 12 *quartos* per lb.	11	0	2¾
Wheat flour, 13 *quartos* per lb.	13	0	3¼
Rice, 11 to 12 *quartos* per lb.	11	0	2¾
Brandy, 2 *reals* per *el quarto*,	—	0	8
Common wine, 26 to 28 *r.* the *arroba* (about 18 bottles),	27 *reals.*	9	0
Valdefunas wine, 36 *reals* per *el quarto*,	—	12	0
Charcoal, 4 *reals* and 5 *quartos* the *arroba*,	—	1	5¼
Wood, 3 *reals* the *arroba*,	—	1	0
Common bread, 6 *quartos* per lb.	—	0	1½
Pan candial 6 *quartos* per lb.	—	0	1½
Common oil, 15 *quartos* per lb.	—	0	3¾
Valencia oil, 4 *reals* per lb.	—	1	4
French oil, 7 *reals* per lb.	—	2	4
Coffee, 34 *quartos* per lb.	—	0	8½
Sugar, 30 to 38 *reals* per lb.	34	11	4
Chocolate, 6, 8, to 10 *reals* per lb.	8	2	8
Tea, 11 *quartos* per oz,	—	0	2¾
Hair-powder, *reals* per lb.	—	0	8

MAJORCA.

SOME circumſtances relating to this iſland, which I procured from good authority at Barcelona, and at Bayonne, from Spaniards who had reſided many years in it, I think too intereſting to be omitted, as they may ſerve, if for no other purpoſe, at leaſt to point

the inquiries of ſome future traveller, who ſhall have an opportunity of viſiting that iſland.

Climate.—The moſt delicious that has been experienced by various perſons well acquainted with France, Italy, Spain and Portugal; and reſulting in a good meaſure from the variety of the face of the country, which riſes from ſome beautiful plains to gentle ſlopes, which, after many undulations of ſurface, finiſh in the mountains. In the greateſt heats of July and Auguſt, the hills preſerve the temperature almoſt vernal: nor are the heats ever ſuffocating in any part. The winters, except on the higheſt parts of the mountains, are mild and pleaſant, as may be gathered from the circumſtances of vegetation, almonds bloſſom in December, are in full bloom in January; and many wild flowers are in all their beauty quite through the year. Spinnage, green peaſe, beans, lettuce, endive, cellery, &c. are in perfection the year round. In the depth of winter, ice is ſeen to the thickneſs of one-tenth of an inch, but melts before the day is much advanced. No ſharp cutting winds are ever felt, either in winter or in ſpring; and a perſon who reſided there ſixteen years, never ſaw a fog. The houſes have no chimnies; but when artificial warmth is wanted, almond-ſhells are burnt in *braſieres*. This extremely agreeable temperature of the climate was confirmed to me by General Murray and his Lady, who reſided there many years; and the former mentioned a circumſtance, which ſhews how erroneous it would be to judge of any climate by the latitude; Leghorn is nearly in the ſame parallel, but the ſevereſt cold he ever felt, in March, was at that place, where, in waſhing, the water became ice before a towel could be well dipped in it.

Culture and Products.—The hills are formed in terraces, and planted and cultivated with great attention. Olives are planted, and under them wheat ſown; in the flats, many almonds and mulberries. Oranges and lemons are in ſuch quantities, that they export many to France. They are in great profuſion, and the moſt beautiful to be imagined. The mountains of Soleya are famous for peaches, and all ſorts of fruit. Hedges of pomegranates are attended with medlar and quince trees, alternately on one ſide, and on the other mulberries; but the beſt fence is the prickly pear, the fruit of which is ripe in July, which is eaten, both leaf and fruit, by cattle, and are ſupported on it in fine order, when other things fail in the heat. Muſk and water melons are in great perfection.

Sugar-canes do well; but no ſuch thing as rice, as neither ſwamp, marſh, nor bog.

Irrigation is well underſtood and much practiſed.

A common courſe of crops,

1. Wheat.
2. Barley.
3. Beans.
4. Peaſe.

Capers (which are a weed) come up in the wheat ſtubbles, which give a crop; then the ſtubble and caper-buſhes are burnt, and the barley and legumes ſucceed, and after thoſe artichokes.

They plough with a pair of oxen or mules.

The proprietors in general keep the land in their own hands.

Living.

This iſland, which by every account might be made a paradiſe, is one of the cheapeſt ſpots in Europe to live in; upon an income of 150l. a year ſterling, men of the better

fort live comfortably and bring up a family. Every vegetable production for the table with all kinds of fruits, are not only in uncommon profuſion but excellent of their ſorts. Poultry no where better; turkies are kept in great droves, and driven to feed on berries as regularly as ſheep to paſture; they are fattened on myrtle-berries, and are not only of a delicious flavour but a great ſize, even to thirty-ſix pounds weight. Mutton is excellent; ſome ſheep are ſo ſmall from the iſland of Yuvica, that three legs are ſometimes ſerved up in one diſh.

All theſe circumſtances united, ſeem to point out this iſland as an excellent winter reſidence for thoſe who can no longer reſort to Nice or Hyeres, and is probably a better climate than either of them.

Produce of the Iſland of Majorca in 1786.

		Peſos.		Engliſh money. £.	s.	d.
Wheat,	475,336 *fanegas* -	1,521,075	—	342,241	17	6
Barley,	152,880 -	300,664	—	67,649	8	0
Oats,	122,068 -	131,274	—	30,211	13	0
Pulſe,	102,037 -	244,888	—	55,009	16	0
Almonds,	60,500 -	129,066	—	29,039	17	0
Oil,	193,030 *arrobas* -	476,140	—	107,131	10	0
Wine,	1,665,660 -	322,829	—	72,636	10	6
Hemp,	24,446 -	83,180	—	18,715	10	0
Flax,	5,038 -	15,367	—	3,457	11	6
Carobs,	500,300 -	83,333	—	18,749	18	6
Figs,	175,000 -	62,000	—	13,950	0	0
Cheeſe,	- - -	25,000	—	56,250	0	0
Wool, 472,795 lb.	- - -	61,341	—	13,801	14	6
Straw of wheat and barley,	- -	125,045	—	28,135	2	6
Silk, 5,347 lb.	- - -	24,061	—	5,413	14	6
Sweet oranges,	- -	45,000	—	10,125	0	0
Fruits of all ſorts,	- - -	147,000	—	33,250	0	0
Pimienta,	- - -	13,000	—	2,925	0	0
Capers,	- - - -	4,500	—	1,012	10	0
Increaſe of ſheep by birth,	- -	126,942	—	28,561	19	0
——— of goats,	- - -	31,430	—	7,071	15	0
——— of black cattle,	- - -	25,704	—	5,783	8	0
——— of hogs,	- - -	240,000	—	54,000	0	0
——— of horſes, mules, and aſſes,	-	74,100	—	16,672	10	0
Many articles are not mentioned in this account, and are reckoned to amount (the ſpecified produce compriſed) to		4,983,326	—	1,121,248	7	0

The extent of Majorca is 123½ ſquare leagues, whereof twenty to one degree.

Majorca is reckoned to be the $\frac{1}{175}$ part of the continent of Spain, and the whole of Spain does not amount to 250,000,000 *peſos* per annum, according to the opinion of many well-informed Spaniards.

Majorca. 316,011 3 0

Spain. 55,933,983 17 0

AN

AN ACCOUNT

OF

E BEEN MADE

OF MONT BLANC

1786.

*.]

WHEN I was writing the preliminary diſcourſe and the firſt part looked upon the ſummit of Mont-blanc as abſolutely unattainab excurſions to Chamouni in 1760 and 1761, I had it publiſhed in all the parishes of the valley, that I would give a conſiderable recompence to whoever ſhould find a practicable route. I had even promiſed to thoſe who made unſucceſsful trials to pay them for their labour: theſe promiſes were of no avail. Pierre Simon made one attempt at the Tacul ſide, and another at the ſide of the glacier of Buiſſons, but returned without any hope of ſucceſs.

However fifteen years after, that is to ſay in 1775, four of the Chamouni guides attempted to gain it by the mountain de la Côte, this mountain which forms a ridge pretty near parallel to the glacier of Buiſſons, approaches to the ices and ſnows which continue without interruption to the top of Mont-blanc.

There is ſome difficulty to overcome before entering on theſe ices, and to croſs the firſt crevices; but theſe firſt obſtacles once ſurmounted, there remains no more than the length of the way, and the difficulty of accompliſhing in one day the aſcent and deſcent. I ſay in one day, becauſe the people of the country think it not ſafe to run the riſk of paſſing the night on theſe ſnows.

Theſe four travellers got very well over the firſt obſtacles; they then endeavoured to follow a great valley of ſnow, which appeared to conduct them immediately to the ſummit of the mountain. All appeared to promiſe them the moſt happy ſucceſs; they had the fineſt weather imaginable, they neither met with openings too large, nor precipices too rapid; but the reverberation of the ſun on the ſnow, and the ſtagnation of the air in this valley made them undergo as they ſaid a ſuffocating heat, and gave them at the ſame time ſuch a diſtaſte for the proviſions with which they were provided, that overcome by inanition and wearineſs, they had the grief to be forced to return the ſame way they went, without having met any viſible inſurmountable obſtacle. It however appears that the efforts they had made were very great, for their ſtrength was very much tried in this excurſion, and from it they became more or leſs ill.

This diſappointment however did not prevent three other of Chamouni guides from undertaking the ſame talk, and by the ſame road in 1783. They paſſed the night at the top of the mountain de la Côte, croſſed the glacier, and followed the ſame valley of ſnow. They had already got to a good height, and were proceeding courageouſly; when one of the boldeſt and moſt vigorous of the three was ſuddenly ſeized with an inſurmountable propenſity to ſleep: he deſired the other two to leave him and go on without, but they could not think of abandoning him, and leaving him to ſleep on the ſnow; perſuaded as they were that the heat of the ſun would kill him: they therefore

Voyage dans les Alpes, ii. 550.

enounced

renounced the undertaking and returned back together to Chamouni. For this propenſity to ſleep, produced by the rarity of the air, left him as ſoon as they had deſcended low enough to find themſelves in a thicker atmoſphere.

It is very likely that even if this overpowering propenſity to ſleep had not ſtopped theſe brave fellows, they would not have been able to have gained the ſummit of the mountain, for in effect though they had attained a great height, they had ſtill a great way to go, the heat incommoded them exceſſively, a thing ſurpriſing at this height; they had no appetite; the wine and proviſions that they took with them had no charms for them. One of them * told me ſeriouſly that it was uſeleſs to carry any proviſions in this excurſion; and that if he ſhould make another trial by the ſame way, he would only take a paraſol and a ſmelling bottle. When I figured to myſelf this tall and vigorous mountaineer grapling with the ſnow, and holding in one hand a little paraſol, and in the other a bottle of *eau ſans pareille*, this image had ſomething in it ſo ridiculous and ſtrange, that nothing could be more convincing to my mind than the idea he had formed to himſelf of the difficulty of this undertaking, and of conſequence of its abſolute impoſſibility for people who have neither the head or the joints of a good guide of Chamouni.

Yet M. Bourrit would again make another trial at the end of the ſeaſon, he likewiſe ſlept at the mountain de la Côte, but an unexpected ſtorm coming on obliged him to turn back juſt at the entrance of the glacier.

For my part, after the informations which I had received from thoſe who had made the attempt at this ſide, I looked on the ſucceſs as abſolutely impoſſible, and this was the opinion of all the intelligent people of Chamouni.

M. Bourrit, who intereſted himſelf more than I did in the conqueſt of Mont Blanc, thought he ought to try it by ſome other ſide; he gained from all parts all the intelligence he could; at length he learned that two hunters in following ſome chamois had got on ſome ridges of rocks to ſo very great a height, that from the place to which they were come, to the ſummit of Mont Blanc, there remained no more than four or five hundred toiſes to get up by the declivities of ſnow which were not very rapid, and in ſo open an air that there was nothing to fear from that ſort of ſuffocation, that had been found in the valley of ſnow which ends at the mountain de la Côte.

Charmed with this diſcovery, M. Bourrit ran to La Grue, the village where theſe hunters lived, and immediately engaged them to make another trial with him. He left the village the ſame evening, and arrived with them at break of day at the foot of ſome ſteep rocks which it was neceſſary to paſs. The morning air was of an extraordinary keenneſs; M. Bourrit ſeized by the cold and overpowered by fatigue could not follow his guides. Two of thoſe, after having left him with the third at the foot of the rocks mounted alone, not only to the top of the ſame rocks but very far on the ſnow: they ſaid that they had reached to the foot of the higheſt ſummit of Mont Blanc, from which they were ſeparated only by a ravine of ice, in which, if they had had more time and help they could have made ſtairs by which they might eaſily have got to the top.

As ſoon as this trial had permitted me to believe in the poſſibility of ſucceſs, I reſolved to make the attempt as ſoon as the ſeaſon would permit; I charged two men of the neighbourhood † to watch near the mountain, and to give me notice as ſoon as the melting of the ſnows would render it poſſible. Unhappily they accumulated during the rigorous winters of 1784 and 1785, and thoſe which have frequently fallen during the cold and rainy ſummer, which has ſucceeded this winter have retarded my departure till the middle of September.

* Joraſſe. † Pierre Balme and Marie Coutet.

I always

I always prefer making theſe excurſions with my guides only; but M. Bourrit, who was the firſt to make known this route, having deſired that we ſhould make this attempt together, I conſented with pleaſure. We took with us his ſon, a young man of twenty-one years of age, whoſe talents promiſe a moſt happy ſucceſs, and whom the love of botany, and the grand objects of contemplation that our Alps preſent, has often conducted on the traces of his father.

I had reckoned on ſleeping as high as poſſible under coverings in form of tents: but M. Bourrit had conceived the happy idea of ſending two days before three men of Chamouni to conſtruct for us under ſhelter of a rock, near the baſe of the Aiguille du Gouté, a ſort of hut or hovel of dry ſtones; an excellent precaution which would ſecure us from the danger of a ſtorm, if we ſhould have the misfortune to meet one.

Theſe diſpoſitions made, we agreed to meet on Monday the twelfth of September at the village of Bionaſſay, ſituated about a league to the north-eaſt above that of Bionnay, M. Bourrit and his ſon came there from the Priory of Chamouni, which is four leagues to the north-eaſt of this village. I left Geneva the eleventh of September, and came in a carriage to Sallenche; and the next morning I went on horſeback to Bionaſſy paſſing by St. Gervais and by Bionnay.

The village of Bionaſſay is ſituated in a very uneven valley, open to the ſouth-eaſt, and ſhut at all other ſides. It is commanded by the glacier of the ſame name, and ſeparated, at the north-eaſt, from the valley of Chamouni by a ſmall chain of ſlate and calcareous mountains.

I obſerved between Bionnay and Bionaſſay ſome remarkable ſtones, but I mean to give the lithological account of this little journey in another place; thoſe details would too much damp the intereſt of which it is ſuſceptible.

I arrived the firſt at Bionaſſay with Pierre Balme, who had come as far as Sallenche to meet me; we ſhould have ſlept at this village, but as there was no inn there, I had aſked at Bionnay which of the peaſants of the place was in the beſt ſituation to entertain us, they directed me to the Conſeiller de la Commune named Batandier. This honeſt peaſant received me with great cordiality; and M. Bourrit coming in the evening from Chamouni, our hoſt gave each of us a good little room, with a bed filled with freſh ſtraw on which I paſſed a very good night.

The next morning I felt ſome uneaſineſs for the weather, the barometer not having mounted during the night more than the ſixteenth of a line; which is much under what it riſes to from evening to morning, when fine weather is perfectly ſettled. My obſervation, compared with that which M. Pictet made at Geneva, gives to the ſituation of Batandier's houſe four hundred and eighty-eight toiſes above our lake, and of conſequence ſix hundred and eighty above the ſea.

We had then ſtill to mount one thouſand eight hundred toiſes before we could get to the ſummit of Mont Blanc, but we had two days to perform it in: as the firſt day we were only to go as far as our hut. As its ſituation had been left to the choice of its conſtructers, we were ignorant of its height, but wiſhed to find it placed as high as poſſible.

At day-break one of the Chamouni guides, who had worked at the conſtruction of the hut, came to inform us it was almoſt finiſhed, but that it would be neceſſary to take another piece of fir, to make the roof more ſolid. We ordered a man of Bionaſſay to carry one, and two others loaded themſelves with ſtraw, and two more with wood for firing. Others carried proviſions, furs, and my phyſical inſtruments, and thus we formed a caravan of ſixteen or ſeventeen people.

I had

I had hoped that we might have gone near two leagues on our mules, but it was with difficulty we could make uſe of them even for one. M. Bourrit the father even wiſhed to go the whole way a foot.

We immediately mounted an eaſy ſlope by the ſide of a profound ravine, in which runs the torrent which iſſues from the glacier of Bionaſſay. Then a rapid aſcent conducted us to a little plain below the glacier: we traverſed this plain in its whole length: we then coaſted the glacier for ſome moments, and we finiſhed by leaving it and taking a ſtrait north-eaſt direction by a very rough but not too fatiguing ſlope, and without any danger.

All the upper part of this ſlope is called Pierre-ronde, without the origin of this name being known; for there is neither rock nor ſtone there remarkable for its roundneſs. This ſlope is free from wood, buſhes; and almoſt all vegetation is covered only with fragments, and preſents a moſt ſavage aſpect. At the left are ſeen bare rocks which conceal the valley of Chamouni, and to the right, the rocks and ices of the baſe of Mont Blanc; for as for its head and ſhoulders, they are concealed by its low and projecting baſes.

Although this aſcent was long enough, I was always afraid to ſee the end of it and come to the hut, becauſe I wiſhed to get as high as poſſible the firſt day, and to make the moſt of the ſecond, which would be the moſt intereſting, but at the ſame time the moſt painful: thus, always counting for nothing the preſent fatigue, we aſcended, almoſt without perceiving it, the ſeven hundred and forty-one toiſes which our hut lay above the village: we got to it about half an hour after one, although we had not ſet out till eight, and divers little accidents had made us loſe more than half an hour of the time.

The ſituation of this hut was the happieſt that could have been choſen in ſo wild a ſituation. It was joined to a rock in the bottom of an angle, ſheltered from the north-eaſt and north-weſt at about fifteen or twenty paces, above a little glacier covered with ſnow, from which iſſued a clear and freſh ſtream which anſwered every purpoſe wanting to our caravan.

Oppoſite the hut was the Aiguille du Gouté, by which we were to attack Mont Blanc. Two of our guides *, who had ſcaled the Aiguille, ſhewed us the ridge which we ſhould climb. They even offered to take advantage of what remained of the day to reconnoitre the mountain, chuſe the eaſieſt route and mark ſteps in the hard ſnow: we accepted the offer with thanks. To the right of theſe rocks we admired a ſummit of ſnow called *la Rogne*, which appeared to us of a prodigious height, we were however told we ſhould ſee it under our feet, from the Dôme of l'Aiguille. All the lower part of this high ſummit was covered with extremely rugged glaciers, which emptied themſelves into that of Bionaſſay. At every moment vaſt maſſes of ice detached themſelves from this glacier, which we could ſee fall, and precipitate themſelves with a horrid craſh and diſſolve in clouds of duſt, that the air raiſed by the fall of ice roſe up like clouds to a ſurpriſing height.

Behind our hut was a ſmall chain of rocks about forty-feet above it. I made haſte to get up it, my travelling companions quickly followed me, and there we enjoyed one of the fineſt views I ever met on the Alps.

Theſe rocks, whoſe height is one thouſand two hundred and twenty-nine toiſes above the lake, and one thouſand five hundred and twenty-two above the ſea, are at the north-weſt ſide quite precipitous. There is ſeen under the feet the ſouthern extremity of the valley of Chamouni, above which we were about nine hundred toiſes. The reſt of this charming valley is ſhortened in the view, and the high mountains which border on it

appear to form a circus round it. The high points ſeen in profile ſubdivide themſelves in a foreſt of pyramids which cloſes the bounds of this circus, and ſeem deſtined to defend the entrance of this charming retreat, and preſerve its peace and innocence. From that ſide, the view extends to the Gemmi, which is known by its double ſummit which has given it that name. But I ſhall not undertake to give a detail of the immenſe heap of mountains which is diſcovered from this ſummit, let it ſuffice to ſay that it preſents the moſt raviſhing proſpect to thoſe who delight in ſuch beauties.

I choſe this ſummit for my obſervatory, I ſuſpended my hygrometer and my thermometer in the air to a ſtick which kept them in the ſhade, whilſt I ſtanding on the moſt projecting point of the rock meaſured with my electrometer the degree of ærial electricity. It is true that the cold north wind which then blew did not permit me to remain long in that ſituation, it was neceſſary to find out a milder temperature under cover of the rocks which ſurrounded our hut; but as ſoon as I had warmed myſelf, I returned again to enjoy the proſpect and continue my obſervations. I will give an account of them in a chapter apart.

I had the chagrin of not being able to make an experiment from which I had promiſed myſelf much pleaſure: that of the neceſſary heat to boil water at different heights. The phyſicians know the profound reſearches of M. De Luc on this ſubject, their preciſion and their exactitude leave no doubt of the reſults; nevertheleſs M. le Chevalier Shuckburgh thinks he has found out another rule.

It was intereſting to repeat theſe experiments, particularly at ſuch heights as no naturaliſt had ever attempted. For eighteen months I had been aſking of M. Paul, a thermometer armed with a micrometer and adapted to a portative kettle: but the want of proper tubes, and the multiplied occupations of this excellent artiſt, had ſo retarded the execution of this inſtrument that it was not ready till the day before our departure. However it appeared to be in very good order, I tried it the ſame night and again with ſucceſs at Bionaſſay; and I hoped it will ſucceed equally well every where elſe, but at the height of the hut the lamp deſtined to make the water boil would not burn; it was a lamp conſtructed on the principles of thoſe that M. Argand had invented, but made in a hurry, and from a bad model: the tinder which ſerved it as a wick burned at firſt very well: but preſently this tinder turned into coal and afterwards went out, an accident which did not happen in a thicker air. Unhappily our apparatus was diſpoſed in ſuch a manner that it was impoſſible to make our water boil on a wood fire, the only one here in our power. After then having uſeleſsly tried this apparatus a thouſand different ways, I was obliged to give up the experiment, or put it off till another opportunity.

But the beauty of the evening, and the magnificence of the ſpectacle, which the ſetting ſun preſented from my obſervatory, conſoled me for this diſappointment. The evening vapour which, like a light gaz, tempered the ſun's brightneſs, and half concealed the immenſe extent we had under our feet, formed the fineſt purple belt, which incircled all the weſtern part of the horizon, whilſt to the eaſt the ſnows at the baſe of Mont Blanc coloured by this light preſented the fineſt and moſt magnificent ſpectacle. In proportion as the vapour deſcended and became more denſe, this belt became narrower, and of a deeper colour; and appeared at laſt of a blood red, at the ſame inſtant ſmall clouds which rove above this chain, darted a light of ſuch brightneſs, that they reſembled flaming ſtars or meteors. When the night was quite ſet in I returned there; the ſky was then perfectly clear, and without clouds, the vapours were only obſervable at the bottom of the valleys: the ſtars ſhining but without any tinkling, ſpread over the tops of the mountains an extreme feeble and pale light, but ſufficient however to

diſtinguiſh the maſſes and the diſtances. The repoſe and profound ſilence which reigned in this vaſt extent, ſtill heightened by the imagination, inſpired me with a ſort of terror; it appeared to me as if I had outlived the univerſe, and that I ſaw its corpſe ſtretched at my feet. Sorrowful as ideas of this nature are, they have a ſort of charm which can hardly be reſiſted. I turned my looks oftener towards this obſcure ſolitude than towards Mont Blanc, whoſe ſhining and phoſphorical ſnows ſtill gave the idea of movement and life; but the keenneſs of the air on this iſolated point preſently forced me to retire to the hut.

The coldeſt part of the evening was three quarters of an hour after ſun-ſet, the thermometer could keep no higher than two and a half degrees above the freezing point. An hour after it got a degree higher, and another in the night, ſtill the fire afforded us great ſatisfaction; indeed we ſcarcely ſhould have been able to have done without it.

But this hut, this aſylum of ſuch conſequence to us, deſerves to be deſcribed. It was about ſeven feet by eight, and four in height: it was incloſed by three walls, and the rock which it was attached to ſerved for a fourth; flat ſtones placed without mortar formed theſe walls; and the ſame ſort of ſtones, ſupported by three or four branches of fir, compoſed the roof: an opening of three feet ſquare, left in the wall, ſerved for an entrance. Two paillaſſes placed on the ground ſerved us for beds; and an open paraſol placed againſt the entrance ſerved us at the ſame time inſtead of a door and curtains. M. Bourrit, and ſtill more ſo his ſon, were incommoded by the purity of the air; they did not digeſt their dinner, and could not eat any ſupper. For my part, whom the pure air does not incommode, if I uſe no violent exerciſe, I paſſed an excellent night in a light and quiet ſleep.

When the paraſol was not before the door, I could ſee from my bed the ſnows, the ices, and the rocks ſituated below our hut; and the riſing of the moon gave to this view the moſt ſingular appearance. Our guides paſſed the night, ſome ſquatted in the holes of rocks, others wrapped up in cloaks and blankets, and others ſat up and watched by a little fire, which they kept up with a part of the wood we brought with us.

As M. Bourrit the year before, at the ſame ſeaſon, and in the ſame place, ſuffered ſeverely from inſupportable cold at ſun-riſe, it was ſettled that we ſhould not ſet out till after ſix o'clock. But as ſoon as day began to appear, I mounted to my obſervatory and there waited the ſun's riſing. I found the view ſtill very fine, leſs ſingular however than at the ſun's ſetting; the vapours, leſs condenſed, did not form in the horizon a cordon ſo diſtinct and highly coloured, but in return I obſerved a ſingular phenomenon. It was formed of rays of a fine purple, which parted from the horizon to the weſt, preciſely oppoſite the ſun; they were not clouds, but a ſort of thin vapour homogenous ſubſtance: theſe rays, to the number of ſix, had their centre a little below the horizon, and extended to ten or twelve degrees from this centre.

We had the precaution to take a warm meſs of ſoup as a preventative againſt the cold; we then made an equal diviſion amongſt our guides of proviſions, precautionary cloathing, and of my inſtruments, and in this manner ſet out at a quarter paſt ſix with the greateſt hope of ſucceſs.

Elevated as we were to one thouſand four hundred and twenty-two toiſes above the ſea, we had ſtill one thouſand toiſes to get up before we could attain the ſummit of Mont Blanc; in effect, the moſt exact meaſures allow this ſummit to be two thouſand four hundred and twenty-ſix toiſes above the Mediterranean. Of theſe one thouſand toiſes, we had to go about ſix hundred on the rocks of the Aiguille du Gouté, and the remainder on the ſnow.

This Aiguille, or high mountain, ſeen from the environs of Geneva, preſents itſelf nder a round form, ſtraight before, and under the higheſt ſummit of Mont Blanc. he ridge of rocks which deſcend from it appear like blackiſh furrows. From our hut e could diſtinguiſh this Aiguille under the ſame aſpect as from Geneva; but as we ere very near it, it concealed from us the height of Mont Blanc; we only ſaw the ſky ove theſe rocks.

The rapidity of the *couloirs*, or hollows, is ſo great, that it is impoſſible either to get up r down, and even if one ſhould happen to fall, it would be found very difficult to re-in one's ſelf; one muſt either roll or ſlide to the bottom of the mountain.

This ſlope, by which we were to get up, as ſeen from Geneva, and alſo from our hut, ppeared ſharp and inacceſſible; yet our guides aſſured us that on a near approach all ieſe ſeeming difficulties would vaniſh: they even went ſo far as to ſay that the aſcent om Bionaſſay to the hut was more difficult and more dangerous than what remained or us to attain the ſummit of Mont Blanc. It may then be eaſily conceived with what ourage and hopes we ſet out.

We began by traverſing not a very ſloping glacier, which ſeparated us from the baſe f the Aiguille, and in twenty minutes came to the firſt rocks of the ridge by which we ere to get on this baſe. This ridge is rapid enough, and the broken or diſunited ocks of which it is compoſed do not offer a very commodious patch. However, we ounted them very gaily in an hour and ſome minutes: the temperature was ſuch as e could deſire: the air, between three and four degrees above the freezing point, was o colder than neceſſary not to heat us in aſcending; we enjoyed the lively and encou-aging pleaſure to perceive our progreſs by the gradual decline of ſummits which not ng before had appeared above us. I felt a moſt lively joy, and which perhaps may ppear puerile, when after having aſcended twenty-five minutes I came to diſcover the ake of Geneva; it was the firſt time I had found myſelf high enough on the baſes of Mont Blanc to be able to perceive it. I had alſo the pleaſure to find here two handſome lants, *arctia Alpina*, and *aricia Helvetica*. This laſt is extremely rare in the Alps of avoy. When we had attained the higheſt part of the ridge, it was neceſſary to climb ſteep ſlope of ſnow to get on the glacier which forms the plateau of the baſe of the iguille, and there, for the firſt time, we were aſſiſted by the hands of our guides, who ere always anxious to offer us their help. It was near three quarters after ſeven o'clock hen we got on this plateau: we had flattered ourſelves with the hopes of getting there ooner; and as we knew that this was but a ſmall part of the whole of our undertaking, thought I ought not to ſtop to obſerve the barometer.

We then paſſed right to the foot of the Aiguille, and were upon the point of getting o it, when we ſaw with much ſurpriſe a man, who did not belong to our caravan, ſcending before us at the glacier of Bionaſſay. But this ſurpriſe changed into a cry of oy of all the cavalcade, when we diſcovered him to be Guidet, the brave fellow who ne year before had accompanied M. Bourrit, and had gone with Marie Coutet almoſt o the ſummit of Mont Blanc: he was not at home when we ſent for him; he had not egun his journey till late in the preceding evening, had got up the mountain in the ight, and came by the ſhorteſt cut into the track that he knew we ſhould take. The uides the moſt loaded haſtened to let him have his ſhare of the baggage, and he gaily ook his place in our rank.

The glacier that we were traverſing touches on one of the ridges of the Aiguille of oute, which is by its rapidity impracticable. This ridge is ſeparated from that which e were to follow by one of thoſe rapid *couloirs* of which I have already ſpoken: it was eceſſary to traverſe this *couloir*: the ſnow which covered it was ſtill frozen, and exceſ-

ſively hard; happily Goutet and Gervais, who had paſſed there the day before in the afternoon, had found this ſnow ſoftened by the ſun, and had marked places in which we could put our feet. Theſe traverſings are what I moſt fear: if your feet fail you have little hope of being able to keep up; but when you directly aſcend or deſcend, if you fall it is eaſier to ſtop yourſelf. Guidet wanted to paſs below us, in caſe our footing ſhould fail, to which we would not conſent, as the ſlope by which he had to paſs in ſo doing was ſtill more rapid and dangerous than where we were; and we followed the method I had uſed in deſcending the glacier of the Aiguille du Midi. Each of us placed himſelf between two guides, who firmly held the two extremities of one of their long ſticks; this ſtick formed at the ſide of the precipice a ſort of barrier on which we ſupported ourſelves; this barrier moved with us, made our walking ſecure, and preſerved us from all danger.

After having traverſed this *couloir*, we attained the ridge of the rock we had to climb, and here it was that our taſk become difficult. We found this ridge incomparably more ſteep than that which had conducted us on the baſe of the Aiguille, the rocks of which it is formed being more incoherent, quite diſunited by the injuries of the air; ſometimes they rolled from under our feet; ſometimes pieces came away in our hands when we laid hold of them; often not knowing where to lay hold, I was obliged to catch at the leg of the guide next before me. The aſcent in ſome places was ſo ſteep, that ſometimes this leg was level with my head: in addition to our troubles, the ſnow which had fallen two days before filled up the intervals of the rocks, and concealed the hard ſnow or ice which we found here and there under our feet. Often the middle of the ridge became abſolutely impaſſable, in which caſe we were obliged to go by the ſides of dangerous *couloirs* by which it was bounded; at other times we met interruptions in the rocks, and it was neceſſary to croſs ſnow which covered ſlopes extremely rapid. All theſe obſtacles augmented gradually in our approach to the ſummit of the Aiguille. At length, after five hours aſcent, three of which paſſed on this fatiguing ridge, Pierre Balmat, who preceded me, ſeeing that not only the ſlope continually became more ſteep, but that we ſtill found, as we advanced, a greater quantity of freſh ſnow, propoſed that I ſhould reſt myſelf while he went before a little to examine what we ſhould do. I conſented with ſo much the more willingneſs, as I had not ſat down ſince our departure in the morning: I had ſometimes ſtopped to take breath, but always ſtanding, ſupporting myſelf on the ſtick. As he advanced he kept calling to us to wait for him, and not to proceed farther till his return. After an hour's abſence he returned, and informed us that the quantity of freſh ſnow higher up was ſo great, that we could not attain the ſummit of theſe rocks without extreme danger and fatigue, and that there we ſhould be obliged to ſtop, becauſe the top of the mountain, beyond the rocks, was covered with ſoft ſnow to the depth of a foot and a half, through which it was impoſſible to advance. His guêtres, covered as high as his knees, atteſted the truth of this report, and the quantity of ſnow all round us was alſo a ſufficient proof of it. In conſequence we agreed, though with regret, to proceed no farther.

The barometer, which I had tried during this halt, only ſupported itſelf at eighteen inches, one ligne, fourteen ſixteenths, and the thermometer in the ſhade at two and a half. At this time the barometer, obſerved at Geneva by M. Pictet at one hundred and fourteen feet above the lake, ſupported itſelf at twenty-ſix inches, eleven lignes, thirty-one thirty-ſeconds; and the thermometer in the open air at fourteen degrees de Reaumur. This obſervation, calculated by the logarithms without regard to the temperature of the air, would give one thouſand nine hundred and thirty-five toiſes above the ſea. If we regard this temperature, in following the formula of M. De Luc, we ſhould take

off ſeventy-two toiſes; but if we adopt the principles of naturaliſts, who have laboured to perfect M. De Luc's, we ſhould make a much leſs conſiderable deduction. For, according to the Chevalier Shuckburgh, we ſhould retrench but thirty toiſes; and according to M. Trembley, but twenty-eight; and ſo the height of the place where we ſtopt would be one thouſand nine hundred and ſeven toiſes above the ſea. Although I could not make theſe calculations on the place itſelf, as I did not know the heighth of the barometer in the plain, I well ſaw that we ought to be about one thouſand nine hundred toiſes, and I told my fellow-traveller ſo; and in the chagrin we felt for not having been able to complete our enterprize, it was ſome conſolation to us to know that we had been higher than any other known obſerver in Europe had ever been before.

I obſerved the hygrometer, the electrometer, the ſtructure of the rocks which ſurrounded us; I collected ſeveral ſamples of theſe rocks; we admired the immenſe extent of the proſpect which preſented itſelf to our view: to the ſouth-weſt we could ſee the river Iſere much beyond Chambery, and our view to the north-eaſt extended to Gemmi, and in this demi-circle, whoſe diameter is about fifty leagues, we darted above the higheſt mountains; we could ſee our lake at the left of the mole, and on the right the mountains of Abondance. The Jura alone terminated our horizon to the north-weſt, for we ſaw it even above the ſummit of the Buet, which was more than two hundred and ſeventy toiſes below us.

Meantime our guides preſſed us to return. Although the thermometer in the ſhade ſupported itſelf only at two, five, and that the immediate action of the ſun's rays made it only mount to four, ſeven, yet this ſame ſun appeared to us extremely ardent, and when we ſtood ſtill we could ſcarcely bear it without the help of a paraſol. This made our guides fearful that the late ſnow, half melted by its rays, would augment the difficulty of the deſcent. It is known that dangerous ways are more difficult in deſcending than mounting, and we had paſſed ſome very bad in getting up. However, by walking with care, and the help of our guides, whoſe ſtrength and courage were equally admirable we returned without any accident to the plateau of the baſe of the Aiguille of Gouté.

As I was no longer preſſed for time, I obſerved the barometer at the border of the ſlope towards the lake, and its height compared, according to M. De Luc's method, with that which he then had, gives to this plateau one thouſand four hundred and ten toiſes above our lake, or one thouſand five hundred and ninety-ſeven above the ſea, which makes about nineteen toiſes more than the ſummit of Buet. It was alſo a ſatisfaction to me to have found there a more convenient ſituation for divers experiments, more elevated than the Buet, and of an eaſier acceſs alſo. This ſame elevation, calculated according to M. Trembley's formula, would be one thouſand four hundred and forty-four toiſes above the lake, and one thouſand ſix hundred and thirty-ſeven above the ſea.

From thence I re-deſcended to the hut very ſlowly, and in obſerving at leiſure the rocks over which I paſſed. On my arrival there I found M. M. Bourrit, who had gone before us, and who felt ſo little fatigued from the journey, that they were getting ready to deſcend to the village of Bionaſſay. This was the more ſurpriſing, as M. Bourrit the younger had been ill the day before, and indiſpoſed all the night; M. Bourrit the father, always pre-occupied by the dread of the cold, from which he ſuffered ſo much the preceding year, had mounted and deſcended the mountain with furred ſhoes, in which his foot had no ſtability, and which rendered this excurſion ſo much the more tireſome for him.

For

For my part, from having found myſelf ſo well the preceding night in the hut, I reſolved to paſs this night alſo in it; either to continue my meteorological obſervations, or to obſerve in my deſcent the nature and ſtructure of the mountain, which I could not have done if I had left it the ſame day; for night came on before M. M. Bourrit had got half way down.

Immediately after their departure I went and placed my inſtruments on the rock which I called my obſervatory, I there ſtill enjoyed the magnificent ſpectacle of the ſun's ſetting; and after a very good night in the hut, I continued in the morning my meteorological obſervations: I compared with great exactneſs, by means of a level, the elevation of this rock with that of the mountains which appeared to equal it nearly in height. I then deſcended ſlowly in picking up ſtones, and ſtopped a good while to obſerve thoſe which are carried down by the glacier of Bionaſſay. Here are found all thoſe of which the Aiguille of Gouté is compoſed. I went to dinner at Bionaſſay, and from thence a horſeback to ſleep at Sallenche.

If this attempt ſhould be made again, I think it would be neceſſary to erect the hut, where one ſhould ſleep, at leaſt two hundred toiſes higher than ours, that is to ſay, at the very foot of the rocks of the Aiguille du Gouté; and thus attack thoſe ſharp and uneven rocks with all the vigour that a night's reſt gives, and before the heat commences. I likewiſe think that if ſome guides were ſent two or three days beforehand to form a ſort of ſtairs in the moſt rapid ſlopes, or at leaſt chuſe the eaſieſt paſſages; for our guides, almoſt as great ſtrangers as we in thoſe deſerts, were often divided in their opinions in the rout we ſhould take; yet nothing is leſs certain than that we had always taken the beſt. But whatever means may be imagined to facilitate this enterprize, it ſhould not be hazarded in a year of great ſnow, but at a time perfectly ſafe, with muſcular joints, and a head well accuſtomed to the ſight of precipices.

FURTHER

FURTHER ATTEMPTS TO ASCEND MONT BLANC

I HAVE given in the ſecond volume, Chap. 52, the hiſtory of the uſeleſs attempts that were made, to the year 1785, to attain the ſummit of Mont Blanc.

To complete this hiſtory, I ought to ſay a word of an excurſion made for the ſame purpoſe in 1786. This excurſion was not ſucceſsful, though it certainly was that which determined Dr. Paccard and Jaques Balmat to undertake the one made at the end of the ſummer of the ſame year.

It may be remembered that the 13th of September, 1785, I had attempted with M. Bourrit, to ſcale Mont Blanc by the Aiguille du Gouté, but that we met with new fallen ſnows which forced us to ſtop at the height of 1935 toiſes above the ſea.

As the obſtacle that theſe ſnows had oppoſed to our deſign, appeared to us to be the effect of the lateneſs of the ſeaſon, I reſolved to repeat the attempt the following year, at a time when the new ſnows ſhould be leſs formidable. In conſequence, and to leſſen as much as poſſible the fatigue experienced in the laſt journey, I ordered Pierre Balmat to erect a hut at the foot of one of the ridges of the Aiguille du Gouté, and as ſoon as the ſeaſon would permit to make ſome excurſions on that ſide, in order to chuſe the moſt convenient route for me to take.

To execute this project, Pierre Balmat, Marie Coutet, and another guide, went the 8th of June, 1786, to ſleep at our old hut at Pierre Ronde, and ſet out for it at break of day; they got up the ſame ridge that I had followed the preceding year, and attained, although with great difficulty, the ſummit of the Aiguille du Gouté, after having all ſucceſſively fallen ill from fatigue and the rarity of the air. From thence by proceeding an hour on the ſnows in the ſame direction, they came to the height of the Dome du Gonté; there they found François Paccard and three other guides, with whom they had concerted this rendezvous, and who had paſſed by the mountain of La Côte to come to the ſame place, always believing that it could be only by the Aiguille du Gonté that the ſummit of Mont Blanc was to be attained; and they had divided themſelves in two parties to make a comparative trial of the two routes which led to the ſummit of du Gouté. This compariſon was entirely to the advantage of the route by the mountain de la Côte. François Paccard and his companions had arrived an hour and a half ſooner, with much leſs fatigue and danger than Pierre Balmat, who had paſſed by the Pierre Ronde.

After having joined, they traverſed a great plain of ſnow, and came to a ridge which unites the ſummit of Mont Blanc to the Dome of Gouté; but this ridge was found to be ſo narrow between two precipices, and at the ſame time ſo dangerous, that it was impoſſible for them to follow it, and attain the ſummit of Mont Blanc. They then examined at different parts the approaches to this ſummit, and the reſult of this ſearch was, that it was abſolutely inacceſſible at leaſt by the Dome of Gouté. They returned from thence to Chamouni by the mountain de la Côte, much diſcontented with their expedition, and haraſſed by a ſtorm accompanied with ſnow and hail.

Sauſſ. vi. 137, 4to.

But

But they did not all return; one of thoſe who had followed François Paccard by the mountain of la Côte, was Jaques Balmat, ſince become famous by his aſcent to the ſummit of Mont Blanc. He was not to be of the party in this excurſion; he had joined Paccard and his party almoſt in ſpite of them. In returning from the Dome of Gouté, as he was not on good terms with the others he walked by himſelf, and kept apart from them to ſearch for chryſtals in a rock at ſome diſtance. When he wiſhed to rejoin them or at leaſt follow their traces on the ſnow, he could not find them; mean time the ſtorm came, and being fearful to venture himſelf alone in the middle of theſe deſerts in the ſtorm and at the approach of night, he preferred ſquatting himſelf down in the ſnow, and there patiently wait till the ſtorm ſhould ceaſe and the coming of day-light; he there ſuffered much from the hail and cold; but towards morning the weather cleared up, and as he had the whole length of the day to return, he reſolved to conſecrate part of it to the trying if he could not, among theſe vaſt and unknown ſolitudes, find out a way by which the ſummit of Mont Blanc might be attained. It was thus that he diſcovered that which has been followed, and which is certainly the only one by which it can be attained.

He did not immediately on his return to Chamounie make his diſcovery known, but as he found that Dr. Paccard had thoughts of making a ſimilar attempt, he communicated the ſecret to him, and offered to ſerve him as a guide. The ſucceſs of this enterprize has been made known to the public by the relations which have been given of it by Dr. Paccard and M. Bourrit.

What is remarkable in the diſcovery of this route is, that it is the ſame which preſents itſelf the moſt naturally to thoſe who view Mont Blanc from Chamounie, and is alſo that which thoſe who made the firſt attempt tried, but of which they became diſguſted by a ſingular prejudice. As it proceeded by a ſort of valley between great heights, it was imagined too warm, and that it excluded the air too much. This valley is nevertheleſs very wide, and acceſſible to the winds, and the ices which form the bounds are not of that nature to heat it. But fatigue and the rarity of the air gave to thoſe, who made the firſt attempts, this oppreſſion of which I have ſo often ſpoken; they attributed this oppreſſion to the heat and ſtagnation of the air, and they no longer endeavoured to attain the ſummit otherwiſe than by the known and iſolated ridges, ſuch as that of Gouté.

The people of Chamounie likewiſe had an idea that ſleeping on the heights would be attended with death, but the trial made by Jaques Balmat in paſſing the night on them, baniſhed this fear; and the impoſſibility of coming to it by the ridges forced them to take the moſt natural and apparent route.

JOURNEY OF SAUSSURE IN AUGUST, 1787.

DIVERS periodical works have informed the public, that laſt year in the month of Auguſt two inhabitants of Chomounie, Mr. Paccard a phyſician, and Jaques Balmat the guide, attained to the ſummit of Mont Blanc, which till then had been deemed impoſſible.

It was made known to me the next day, and I immediately ſet out to endeavour to follow their traces; but there fell ſo much rain and ſnow that I was forced to give up the project for this ſeaſon. I commiſſioned Jaques Balmat to viſit the mountain in the beginning of June, and to let me know as ſoon as the ſinking of the winter ſnow ſhould render it practicable. In the interval I went into Provence to make experiments by the ſea ſide, with a deſign to compare them with thoſe I propoſed to make on Mont Blanc.

Jaques

Jaques Balmat in the month of June made two uſeleſs attempts, mean time he wrote me word he had no doubt but it might be done in the month of July. I then ſet out for Chamounie. At Salenche I met the courageous Balmat, who was coming to Geneva to inform me of his new ſucceſs; the fifth of July he had attained the ſummit of the mountain with two guides, John Michel Cachat and Alexis Tournier. It rained on my arrival at Chamounie, and the bad weather continued three weeks; but I was determined to wait till the end of the ſeaſon, rather than miſs a favourable opportunity.

This opportunity ſo much deſired came at laſt, I took my departure accompanied by a ſervant, and eighteen guides who carried my inſtruments and other neceſſary apparatus.

My eldeſt ſon was extremely deſirous of accompanying me; but I was afraid he was neither ſtrong enough nor ſufficiently accuſtomed to excurſions of this nature, therefore inſiſted that he ſhould give up the deſign. He ſtaid at the Priory, where he made, with much care, obſervations ſimilar to thoſe I made on the top.

Although it is hardly two leagues and a quarter in a direct line from the Priory of Chamounie to the ſummit of Mont Blanc, it takes eighteen hours to walk it, on account of the bad road, the turnings, and about one thouſand nine hundred and twenty toiſes to get up.

To be perfectly at liberty in the choice of the places where I ſhould ſleep, I had a tent carried, and the firſt night I ſlept under it on the ſummit of the mountain of Côte, which is ſituated on the ſouth of the Priory, and at ſeven hundred and ſeventy-nine toiſes above this village.

This journey is free from pain and danger, the aſcent is always on the graſs or on the rock, and the excurſion is eaſily made in five or ſix hours. But from thence to the top, there is nothing but ice and ſnow to walk on.

The ſecond journey is not the eaſieſt. We had immediately to croſs the glacier of the Côte to get to the foot of a chain of rock incloſed by the ſnows of Mont Blanc. This glacier is difficult and dangerous. It is interſected by large, deep, irregular crevices; and it is often difficult to paſs them except over bridges of ſnow, which are ſometimes extremely ſlight, and ſuſpended over abyſes. One of my guides had nearly periſhed here. He had gone the day before with two others to reconnoitre the paſſage, happily they had had the precaution to faſten themſelves together by cords; the ſnow gave way under him in the middle of a wide and deep crevice, and he continued ſuſpended between his two companions. We paſſed by the opening which had been formed under him, and I trembled at the ſight of the danger he had run. The paſſage of this glacier is ſo difficult and winding, that it took us three hours to go from the top of the Côte to the firſt rocks of this iſolated chain, though it is little more than a quarter of a league in a direct line.

After having attained theſe rocks, we ſoon quitted them again to go up a winding valley full of ſnow, which ſtretches from north to ſouth to the foot of the higheſt ſummit. This ſnow is interſected at different diſtances by enormous and ſuperb crevices. Their lively and neat form ſhews the ſnow diſpoſed of in horizontal beds, and each of theſe beds anſwer to a year; be the largeneſs of its crevices what it may, the bottom can no where be diſcovered.

My guides wiſhed we ſhould paſs the night near ſome of thoſe rocks which are to be met with in this route, but as the higheſt are ſix or ſeven hundred toiſes lower than the ſummit, I was deſirous to get higher up. To do this, it was neceſſary to pitch our tent amid the ſnows, this I had much trouble to make my companions conſent to. They imagined that during the night there reigned on theſe high ſnows an inſupportable cold,

and ſeriouſly believed they ſhould periſh there. At laſt I told them, that for my part I was determined to do it with thoſe amongſt them on whom I could depend; that we would dig deep in the ſnow and cover this hollow with the covering of the tent, and there ſhut ourſelves in together, and in this manner we ſhould not ſuffer from the rigour of the cold. Theſe arrangements having encouraged them, we purſued our courſe.

At four in the evening we got to the ſecond of the three great platforms of ſnow which we had to paſs, and there we pitched our tent, one thouſand four hundred and fifty-five toiſes above the Priory, and one thouſand nine hundred and ninety-five above the ſea, ninety toiſes above the pike of Teneriffe. We did not attempt to get to the laſt platform, becauſe there we ſhould be expoſed to the fall of avalanches.

The firſt platform by which we had lately paſt is not exempt from them. We had paſſed over two of theſe avalanches, which had fallen ſince Balmat's laſt journey, the broken remains of which covered the whole valley.

My guides immediately ſet about excavating a place where we might paſs the night; but they very ſoon felt the effect of the rarity of the air *. Theſe robuſt men, to whom ſeven or eight hours walking is in reality nothing, had hardly thrown up five or ſix ſhovels of ſnow when they found it abſolutely impoſſible to continue; they found it neceſſary conſtantly to relieve each other. One of them who had turned back a little to fetch ſome water in a caſk from a hollow, was taken ill in going, returned without water, and paſſed the night in the moſt agoniſing pain. Myſelf who am ſo accuſtomed to the air of the mountains, and who feel better in this air than in the plain, I was overcome with wearineſs in obſerving my meteorological inſtruments. This illneſs cauſed in us an ardent thirſt, and we could not procure water but by melting the ſnow, for the water we had ſeen in coming up, was found frozen when they returned to fetch ſome, and the little chaffing-diſh we had with us afforded a ſlow ſupply for twenty thirſty perſons.

From the middle of this *plateau*, encloſed between the laſt ſummit of Mont Blanc, to the ſouth, its high ſteps to the eaſt, and the Dome du Goûté to the weſt, there is ſcarce any thing to be ſeen but ſnow; this ſnow is quite pure, of a dazzling whiteneſs, and on the high ſummits forms the moſt ſingular contraſt with the almoſt black ſky of theſe high regions. No living creature to be ſeen, no appearance of vegetation; it is the dwelling of ſilence and cold. When I repreſented to myſelf Doctor Paccard and Jaques Balmat arriving the firſt at the cloſe of day in theſe deſerts, without ſhelter, without ſuccour, without even knowing that mankind could exiſt in thoſe places they were attempting to get to, but continuing nevertheleſs boldly their career, I could not but admire their reſolution and courage.

My guides always occupied with the fear of cold, ſo cloſely ſhut all the openings of the tent, that I ſuffered much from the heat and impurity of the air, occaſioned by the reſpiration of ſo many people. I was obliged to get out in the night for the ſake of taking breath. The moon ſhone with the greateſt luſtre in the middle of the ſky of a dark ebony colour, Jupiter ſeemed to throw out ſtrong rays of light from behind the higheſt ſummit to the eaſt of Mont Blanc, and the reverberating light all over this extent of ſnow was ſo dazzling, that only the ſtars of the firſt and ſecond magnitude were diſtinguiſhable. At length however we began to ſleep, when we were awaked by the noiſe of a great avalanche, which covered part of the declivity that we ſhould have to climb the next day.

At break of day the thermometer was three degrees below the freezing point. It was late when we ſet out, owing to the neceſſity we were under of melting ſnow for

* The barometer ſtood but at 17 inches $10\frac{2}{3}$ lines.

breakfaſt, and to have ſome to carry with us; it was no ſooner melted than drank, and thoſe people who religiouſly guarded the wine I had brought with us, continually ſtole the water I had in reſerve. We began by aſcending the third and laſt platform, then took to the left to get on the higheſt rock at the eaſt of the ſummit. The declivity extremely ſlanted, thirty-nine degrees in ſome places, and every where borders on precipices, and the ſurface of the ſnow was ſo hard, that thoſe who went firſt were obliged to break it with a hatchet before they could gain a footing. It took us two hours to climb this declivity, which is about two hundred and fifty toiſes high. Coming to the laſt rock, we took to the right inclining weſterly to climb the laſt declivity, the perpendicular height of which is about one hundred and fifty toiſes. This declivity inclines only to twenty-eight or twenty-nine degrees and is not dangerous; but the air is ſo rarified that our ſtrength viſibly failed, as near the ſummit I could only go fifteen or ſixteen ſteps without taking breath, I even felt now and then a ſort of fainting which obliged me to ſit down, but in proportion as I recovered my reſpiration, I felt my ſtrength return; when recovered enough to proceed, I ſeemed as if I could get to the top at one ſtretch. All my guides in proportion to their ſtrength were in the ſame ſituation. It took us two hours from the laſt rock to the ſummit, and it was eleven o'clock when we gained it.

My firſt looks were fixt on Chamounie where I knew my wife and her two ſiſters were, their eyes fixed to a teleſcope following all our ſteps with an uneaſineſs, too great without doubt, but not leſs diſtreſſing to them. I felt a very pleaſing and conſoling ſentiment when I ſaw the flag which they had promiſed to hoiſt the moment they obſerved me at the ſummit, when their apprehenſions would be at leaſt ſuſpended.

I could now enjoy without regret the grand ſpectacle I had under my eyes. A light vapour ſuſpended in the lower regions of the air, concealed from my ſight the loweſt and moſt diſtant objects, ſuch as the plains of France and Lombardy; but I did not much regret this loſs. What I had juſt ſeen and what I ſaw in the cleareſt manner, is the whole of all the high ſummits of which I had ſo long deſired to know the organization. I could hardly believe my eyes, it appeared to me like a dream, when I ſaw placed under my eyes thoſe majeſtic ſummits, theſe redoubtable Aiguilles, the Midi, the Argentiere, the Geant, whoſe baſes even had been for me of ſuch difficult and dangerous acceſs. I ſeized their relation to each other, their connection, their ſtructure, and a ſingle glance cleared up doubts that years of labour had not been able to diſſolve.

During this time my guides pitched my tent, and ſet out the little table on which I meant to make the experiment of the ebullition of the water. But when it was neceſſary for me to diſpoſe of my inſtruments and obſerve them, I found myſelf every moment obliged to ſuſpend my work, and attend only to my reſpiration.

If it is conſidered that the barometer was then only at ſixteen inches one line, and that thus the air had little more than half of its ordinary denſity, it may be comprehended that it was neceſſary to ſupply it by the frequency of inſpirations. When I was perfectly quiet, I only felt a ſlight pain at my breaſt; but when my attention was fixed for ſome moments in continuation, and particularly when in ſtooping, I leaned on my ſtomach, I was obliged to reſt during two or three minutes, to recover myſelf again. My guides felt the ſame ſenſations. They had no appetite; and to ſay the truth, our proviſions, which were all frozen, were not in that ſtate calculated to excite one; neither did they care for wine, or brandy, indeed they had found that ſtrong liquors increaſed this indiſpoſition, without doubt by increaſing the quickneſs of the circulation. It was freſh water only that did them good, and afforded them pleaſure; but time and trouble were wanting to make a fire, without which we could not have any.

I nevertheleſs remained at the top till half after three, and although I loſt not a ſingle moment, I was not able in theſe four hours and a half, to make all the experiments I have frequently made in leſs than three hours at the ſea ſide. I made however with care the moſt eſſential ones.

I got down eaſier than I expected. As the motion in deſcending does not preſs the diaphragm, it does not confine the reſpiration, and one is not, therefore, obliged to ſtop ſo often to take breath. The deſcent from the rock to the firſt platform was nevertheleſs very difficult by its great ſteepneſs, and the ſun ſhined with ſuch brightneſs on the precipices beneath us, that it needed heads well accuſtomed to ſuch ſights not to be terrified. I again ſlept on the ſnow two hundred toiſes lower than the preceding night. There it was I became convinced that it was the rarity of the air which incommoded us on the ſummit; for if it had been from wearineſs we ſhould have been much ſicker after this long and dangerous deſcent; but, on the contrary, we ſupped with a very good appetite, and I made my obſervations without any obſtruction from indiſpoſition. I even believe that the height where this indiſpoſition begins is fixed, beyond which it is impoſſible to proceed farther. For my own part I find myſelf very well at one thouſand nine hundred toiſes above the ſea, but as ſoon as I get higher I feel myſelf indiſpoſed.

The next day we found the glacier of the Côte changed by the heat of theſe two days, and ſtill more difficult to paſs than it was getting up. We were obliged to deſcend a declivity of ſnow, inclined to fifty degrees, to avoid a crevice which had opened during our journey. At length at half after nine we found ourſelves approach the Côte mountain, very happy to find ourſelves again in a place where we were not afraid of it ſinking under our feet.

There I met Bourrit who wanted to engage ſome of my guides to go up again with him; but they found themſelves too fatigued, and wiſhed to reſt themſelves at Chamounie. We deſcended very gaily to the Priory, where we got to dinner. It was a great pleaſure to me to have them all return ſafe, and well with their eyes and face in the beſt poſſible ſtate. The black crapes with which we had provided ourſelves, and with which we covered our faces, had perfectly preſerved us from the temporary blindneſs, and chaped and burned faces often occaſioned by the reverberation of the ſnow, which thoſe who had gone there before us had felt.

Details of the Journey.

IN going from the Priory to Mont Blanc, by the Côte Mountain, you muſt begin by following the road to Geneva, as far as the village of Buiſſons, and then take the path which leads to the glacier of that name. But at the foot of the declivity which leads to this glacier, you turn to the right which leads to the hamlet of the Mount.

This hamlet is ſituated on a hill of gypſum; on the ſurface of this hill are ſeen hollows, ſome in the form of funnels, others on the contrary have only a narrow orifice and widening farther in. I was ſhewn one in a field ſcattered over with buſhes, the opening of which was but a foot wide, but farther in its diameter was ten or twelve feet of a ſpherical form. Without doubt, theſe hollows are made by the waters which diſſolve, and draw with them the gypſum which forms the hill, whilſt the vegetable earth, withheld by the roots of graſs and buſhes, reſts ſuſpended above theſe cavities. As to the ſpherical form of theſe cavities, it is difficult to explain; neither are thoſe geome who give the account.

A little

A little beyond the Mount we began to aſcend, in purſuing the borders of the torrent which iſſues from the glacier of Taconay; there inſtead of fixed rocks we only find wrecks, diſplaced rocks, compoſed of quartz, of mica, of ſhiſtæ hornblende, or of ferruginous horn ſtone, which diſſolves in the air, and changes into oxide of iron of a ruſty colour. Theſe fragments have frequently a rhomboidal form.

Soon after are ſeen to our left yellowiſh rocks, which decompoſe, and whoſe nature is the ſame as thoſe fragments. As to their ſtructure and ſituation, they are, in general, conformable to the other works of Chamounie.

In proportion as we got higher we found the horn rock abound more in theſe fragments, nevertheleſs one meets ſome fine knots of granite of felſpar, of an almoſt black grey, mixed with white quartz; of quartz croſſed with threads of amianth and others.

This aſcent is extremely wild, at the bottom of a narrow valley, with the glacier of Taconay in front, briſtled with flakes of ice, not clear and white, like thoſe of Buiſſons, but ſoiled by a black mud, and interſected with rocks of the ſame colour: but in getting up higher we diſcovered above this glacier, clear and ſharp-edged ſnows of the Dôme of Goûté.

Till within half a league beyond the hamlet of the Mount, you may go on mules for about two ſmall leagues from the Priory; but all the reſt on foot.

Soon after we got above the glacier of Taconay, ſome part of the way became difficult; we then met with a clear fountain of freſh water, where the guides already fatigued with their loads took ſome reſt.

There we faced the glacier of Taconay, remarkable for the different colours of its ices, which at our ſide on the right bank is muddy and black, whilſt on the oppoſite bank they are tranſparent and white.

The rocks on both ſides are the ſame as thoſe I have above deſcribed; they divide frequently into oblique angled parallepipeda; their ſituation and ſtructure are alſo the ſame.

In getting up higher we found harder grey rocks, reſembling veined granites, with lengthened knots and veins of quartz, parallel to their beds and layers. Afterwards we got nearer the glacier, and climbed a ſloping declivity to the Moraine, whoſe ridge we followed for ſome time; we ſoon after left it entirely by getting higher on the mountain to the left.

Half an hour after having quitted the glacier, we came to the foot of a pretty high ſharp rock, which guards a narrow and deep cavity, from which there is no way of getting but by ſcaling this rock; this paſſage is called the *Mapas* or *bad ſtep*: they had placed a ladder there for me, on a ſuppoſition I ſhould want it, but as I was unwilling to give my guides a bad opinion of my intrepidity, I paſſed on without touching it.

Beyond the Mapas we were obliged to paſs by ſome narrow corners on high ſharp ridges.

We then followed an uneven ridge, with the precipice to the right, and very uneven elds to the left; after that we climbed a ſlope to a cavern, where I ſlept the 20th of uguſt 1786, when, immediately after Doctor Paccard's journey, I endeavoured, by folwing his ſteps, to attain the ſummit of Mont Blanc. But in the night there happened ch a ſtorm of rain and ſnow, that I was obliged to return ſorrowfully, and put off the tempt till the following year.

Each of theſe journeys took me about four hours, without including reſt, from the Priory of Chamounie to this cavern.

The ſummit of this rock, to the north-weſt of this cavern, preſents a very fine proſpect: it forms one of the heights of the narrow ridge of the Côte mountain, which ſe-

parates the glacier of Taconay, from that of the Buiſſons. The neck by which it is paſſed is about ſix hundred toiſes above the Priory of Chamounie. From this ridge is ſeen the two glaciers juſt mentioned, and which lay immediately under our feet, all the valley of Chamounie, to the defile de Balme, and the two chains which border this defile: farther on is ſeen the tower d'Ai, and the Aiguille of Midi, which over-tops St. Maurice, as well as other heights at a greater diſtance. From the oppoſite ſide is ſeen the mountain beyond the glacier of Taconay, which bears the name of this glacier, and the trenches of the beds of this mountain. Theſe beds ſhew with the greateſt regularity their poſition. Finally, in the ſame direction the profile of the Aiguille of Gouté alſo offers the ſame poſition of beds.

But the moſt ſingular point of view is that of the ridge itſelf, on which we ſtood, ſeen at its full length from the north-weſt ſide. Great blocks of rocks with ſharp angles, boldly and ſingularly heaped on each other, crown the ſummit of this ridge, and preſent the moſt wild and fanciful aſpect; the ſmiling and beautiful pariſh of Ouches appears divided by theſe ſterile rocks, and forms with them a ſtriking contraſt.

One of theſe blocks, which is ſharp angled, projects very much over the precipice, and is called from its ſhape, the *bird's beck*. It is ſaid, that a ſhepherd, who laid a wager to go and ſeat himſelf on the point of this beck, actually got to it, and ſat on it, but that in moving to come away, he loſt his equilibrium, fell, and was killed upon the pot.

The rocks of this part of the ridge are for the moſt part of ſchiſtus, compoſed of black hornblende, and white felſpar *. There is frequently found in the crevices of theſe rocks, tranſlucid little cryſtals, of felſpar a little inclining to green.

It was twelve when we came to this ridge; I ſtopped half an hour to give my guides time to dine. During this time I amuſed myſelf with the ſight of ſome people a great way beneath me, who were croſſing with great difficulty, ſupported by their guides, the lower *plateau* of the glacier of Buiſſons, and who very probably were propoſing to themſelves at their return to make a pompous recital of their undertaking, and the riſks they had run.

I looked, but looked in vain, on the ſecond platform, for two of my guides, who had flattered themſelves with the expectation of getting before us to the ridge, where we were, in paſſing by this platform of the glacier, which in effect preſents a more direct route to the Priory. But as ſome of the way is very bad, we were very uneaſy at not ſeeing them. They however rejoined us, but very late.

After having croſſed this ridge, we continued to aſcend obliquely, between the glacier of Buiſſons and the top of this ſame ridge, the rocks of which are always of veined granite, here and there mixed with beds of *ſiénite ſchieſte*, or of a foliated rock, compoſed of bladed hornblende, and felſpar. The beds of theſe rocks are always in the ſame ſituation.

We paſſed under a deep cavern, where Jaques Balmat, in his preceding journey, had concealed the ladder which was to aſſiſt us in croſſing the crevices of the glacier, likewiſe a pole to make uſe of in very bad places. He found the ladder, but the pole was ſtolen; it is ſingular that thieves ſhould find their way to ſuch a place; however, it cannot be ſaid they were highway robbers.

We alſo paſſed by the foot of the Aiguille de la Tour, which is the higheſt point of this ridge. We afterwards climbed ſome granite veined rocks, always ſituated in the ſame

* *ienit ſchiefer* of Werner.

manner;

manner; and we arrived, at three quarters after one, at the ſummit of the Côte mountain, at the place where we were to paſs the night.

The firſt journey took us but ſix hours and a half from the Priory to our ſleeping-place.

This ſleeping-place conſiſted of a great heap of blocks of granite, among which my guides hoped to find ſhelter, and where Dr. Paccard and Jaques Balmat had ſlept the firſt night of their expedition. Theſe blocks have been forced there by the glacier which is very near, and which is to be croſſed to make a way to the ſummit of Mont Blanc. And there it is we quitted the firm ground to embark on ice and ſnow to the end of the journey.

The croſſing of the glacier in the morning while the ſnow is hard is to be preferred, as it becomes much more difficult when the heat of the ſun has ſoftened the ſnow.

This is what Marie Coutet found under whom the ſnow gave way, when he went to reconnoitre the way we ſhould go the next day. Happily, as I have ſaid in the abridged relation, he reſted ſuſpended by the cords which faſtened him to his two comrades, who had accompanied him. At their return we were all eager to have an account of the expedition; as ſoldiers are to aſk the ſpies of an army news of the enemy's ſituation. Marie Coutet, with great ſeeming indifference and even gaiety, told his ſtory; notwithſtanding which, his recital caſt a ſhade of ſorrow on the countenances of his hearers; the moſt heroic ſmiled at it, but the reſt viewed it in a more ſerious light. Mean time nobody talked of returning there, but, on the contrary, began to look out for a place of ſhelter to paſs the night: ſome went to my old lodging, where they hoped to be warmer; others fixed themſelves between the blocks of granite, for my part, I ſlept under my tent with my ſervant and two or three of my ancient guides.

The next day, 2d of Auguſt, notwithſtanding the intereſt we all had in ſetting off early, there aroſe ſuch difficulties among the guides in the arrangement and diviſion of their loads, that it was half after ſix o'clock before we ſet out, each fearing to load himſelf, leſs from fear of the hardſhip, than of ſinking in the ſnow by the weight of himſelf and load, and by this means fall into a crevice.

We got on the glacier, oppoſite the blocks of granite under which we ſlept; the entrance on it was eaſy enough, but we ſoon found ourſelves entangled in a labyrinth of rocks of ice ſeparated by large crevices, in ſome places opening very wide, in others covered either wholly or in part by the ſnow, which ſometimes forms a ſort of arches underneath, and which are ſometimes the only reſources in one's power to get over theſe crevices; in other reſpects it is an uneven ridge of ice which ſerves as a bridge to croſs over. In ſome places, where the crevices are quite empty, we had to go down to the bottom and get up at the other ſide by ſtairs cut with a hatchet in the very ice: but in no part is the rock found or ſeen *; and ſometimes after having got to the bottom of theſe abyſſes, ſurrounded with almoſt perpendicular walls of ice, you can hardly conceive how you ſhall get out again, however as long as they walked on the ice, though ever ſo narrow the ridges, and ſlanting the declivities of it are, theſe intrepid Chamouniards, whoſe head and feet are equally firm, appear neither afraid or uneaſy; they talk, laugh, and defy each other in jeſt; but when they paſs over theſe ſlight roofs ſuſpended over deep abyſſes, they walk in a moſt profound ſilence; the three firſt tied together by cords, about five or ſix feet diſtance between them; the others two by two holding their ſticks by the ends, their eyes fixed on their feet, each endeavouring to place exactly and lightly his foot in the traces of the one before him. Above all it was after we had ſeen the place where

* Their bottom is always of ſnow or ice.

Marie

Marie Coutet had fallen, that this ſort of fear increaſed; the ſnow had quite given way ſuddenly under his feet and formed round him an empty ſpace of about ſix or ſeven feet in diameter, and diſcovered an abyſs to which was ſeen neither bottom nor ſides; and that in a place where no exterior danger appeared. When after having got clear of ſome of theſe ſuſpicious ſnows we found ourſelves on a rock of ice, the expreſſions of joy and ſerenity ſhined on all our countenances, and our jokes and good humour returned. We then held a council on which way we ſhould take, and grown bold by ſucceſs, we expoſed ourſelves with the greateſt confidence to new dangers. It took us three hours to croſs this redoutable glacier, although hardly a quarter of a league in breadth. From this time we had only to walk on ſnow, often rendered extremely difficult by the very great ſlants of the declivities, and ſometimes dangerous when theſe declivities bordered on precipices: but in this caſe at leaſt we had no dangers to encounter but what we ſaw, and where we ran no riſk of being ſwallowed up, without either ſtrength or addreſs being of any avail to us.

In going from this glacier, we were obliged to climb one of thoſe declivities of ſnow extremely ſloped, after which we had to paſs to the foot of the loweſt and moſt northerly rock of a ſmall chain of inſulated rocks, in the middle of the ices of Mont Blanc.

This chain runs pretty near from north to ſouth, and is entirely compoſed of primitive foliated rocks, the elements of which are of blackiſh or greeniſh plates of hornblende, of felſpar, of *plombagine*, with a little quartz and mica.

There is found there alſo a greeniſh ſtone, brilliant enough, tranſlucid, fibrous and ſchiſtoſe, pretty hard, fuſible by the blow-pipe, in a globule of 0.3, line of green glaſs, tranſlucid, of a greaſy luſtre. This ſubſtance agrees much with the *ſteatite aſbeſtiforme* of St. Gothard; but its parts are finer, it is more brilliant, harder, more fuſible, and produces a clearer glaſs. But except another ſpecies is made, I cannot compare it to any other.

As to the reſt, the felſpar, which forms a part of the compoſition of theſe rocks, is of the ſort which I call fat, becauſe it has a fat and oily luſtre. All the rocks of this chain have their beds ſituated like thoſe of the Côte mountain, according to the general law of the Chamounie rocks, but are inclined low.

This chain at the eaſtern ſide is ſeparated from the *Aiguille du Midi*, and ſome mountains, which join this *Aiguille* with Mont Blanc by an extremely wild glacier, almoſt wholly compoſed of *ſeracs*.

The name of *ſerac*, in our mountains, is given to a ſort of white compact cheeſe, taken from whey, and preſſed in a ſort of rectangular caſes, where it takes a cubical form, or rather rectangular parallelipidus. The ſnows at a great height frequently take this form when they freeze, after having in part imbibed water. They then become extremely compact; in this ſtate, if a thick bed of this hardened ice comes on a declivity, and ſhould, as it often happens, ſlide down in a body on this declivity; and, in ſo ſliding, if ſome parts of the maſs ſhould not go equally with the reſt, their weight forces them to break in pretty near rectangular fragments, ſome of which may meaſure fifty feet, and which, by reaſon of their having no mixture, are as regularly formed as if they had been chiſſeled.

On the faces of thoſe great parallelipids is ſeen one of theſe beds of ſnow accumulated from year to year, and paſſing gradually from the ſtate of ſnow to that of ice, by the infiltration and ſucceſſive freezing of rain and other waters which reſult from the ſuperior beds after melting.

We had alſo at our right great heaps of ſnow into this form of *ſerac*, and we ſhould have been obliged to paſs between their intervals with much difficulty and danger, had

it

it been ever ſo little later in the ſeaſon, but a bridge of ſnow which would have melted in a few days, ſerved us to croſs an enormous opening, and ſaved us the trouble of paſſing amid the *feracs*.

We reſted ourſelves ſome moments in the ſhade of ſome rocks of the iſolated chain, of which I have ſpoken higher up.

We then went to the weſt, after which we again approached it at the place where the year before I had the hut erected with the intention of ſleeping there, but, as I have already mentioned, bad weather prevented me from getting there. In other reſpects, this ſtation had been badly choſen, being too near the firſt; as it is not more than one hundred and twenty toiſes above the top of the Côte mountain; ſo that we ſhould have had nine hundred toiſes to aſcend the third day; whilſt, on the contrary, it was neceſſary for ſeveral reaſons to leave the ſmalleſt portion for the laſt.

The nature of the rocks which compoſe this part of the inſulated chain is ſtill the ſame; and there is beſides obſervable ſome argillaceous ſchiſtus of the nature of ſlate, and ſome ſchiſtoſe granite rocks with ſome knots of quartz; the ſituation of their beds is always the ſame, but approaches nearer to the vertical. There, and higher up, this chain is frequently interrupted by ſnows; the points of theſe rocks project like little iſlands or ſhelves from the ſea of ſnow which covers this vaſt region. My guides cauſed me to loſe a great deal of time here under the pretext of breakfaſting and reſting; their intention was to delay our journey, that we ſhould not be able before night to venture ourſelves on that part of our way where we ſhould meet no more rocks, and where we ſhould be obliged to ſleep on the ſnow. We did not ſet out again till eleven o'clock, although we arrived about nine.

I again found the *Diſpenſia Helvetica* in flower on theſe rocks.

We had from thence a glimpſe of the lake acroſs the valley of Abondance from the firſt rocks; but in continuing to aſcend ſaw it ſtill better, we could even very well diſtinguiſh the town of Nyon. The mountains of Faucigni appearing lower and lower before us, *l'aiguille percée* of Repoſoir was that which kept longeſt in ſight, owing to its nearneſs to us, and its projecting ſummit in a diſtant horizon, for we could only call the view of thoſe completed over which we could ſee the Jura. Every victory of this ſort was a ſubject of joy to the whole party: for nothing animated and encouraged us more than a diſtinct view of the progreſs we made.

After an hour's walk we came to an immenſe opening, along which we had to coaſt. And although a hundred feet wide, we could perceive no bottom to it.

The moment we were ſtanding on its edge reſting ourſelves, admiring its depth, and obſerving its beds of ſnow, my ſervant, by I do not know what heedleſſneſs, let fall the ſtand of my barometer, which he held in his hand; it ſlided with the rapidity of an arrow on the ſlanted wall of the opening, and fixed itſelf at an immenſe depth at the oppoſite ſide, where it continued vibrating, like the lance of Achilles on the banks of the Scamander. I felt a very lively movement of concern, becauſe it not only ſerved as a prop to the barometer, but alſo to a compaſs, a teleſcope, and many other inſtruments which faſtened on it; in a moment ſome of my guides, ſenſible of my concern, offered to go for it, but as my fear of expoſing them to too much danger prevented my conſenting to it, they proteſted there was no danger, and immediately one of them paſſed a cord under his arm, and the others let him down to where it was, he drew it away and brought it back in triumph. I had a double uneaſineſs during this operation: firſt, the danger of the ſuſpended guide; next, as we were within view of Chamouni, from whence with a teleſcope all our movements were perceivable, I thought that if at this moment our friends had their eyes fixt on us, they would, without doubt, think one

of us had rumbled into the abyſs, and that the others were getting him up. I have been ſince informed, that happily at this moment they were not looking at us.

We were obliged to croſs this ſame opening on a dangerous bridge of ſnow; after which, by a very ſloping declivity of ſnow we came to one of the rocks of the inſulated chain, where I ſlept the day of my return from the ſummit, and for that reaſon I called it the rock of Happy return; its height is one thouſand ſeven hundred and eighty toiſes.

We arrived there at half after one, and dined in the ſun with a good appetite, but much regretted the want of water, when one of the guides thought of a very ingenious method to procure ſome: they threw ſome balls of ſnow againſt the rocks expoſed to the ſun, part of which ſticking melted by the heat of the rock, and we ſaved it by little and little as it fell; to relieve themſelves they threw the ſnow-balls by turns, and formed a ſort of well, which ſupplied us with as much water as we wanted.

This rock, as well as that which is more to the ſouth, and the laſt of this inſulated chain, is like the others compoſed of primitive ſchiſtoſe rocks, mixt with quartz, hornblend, and felſpar, with knots, ſome of pure quartz, others of granite rocks. The higheſt ſhew ſome veins, ſome of black hornblende pretty near pure; others of white *felſpar*; but an oxide of iron which comes from the hornblende diſſolved, gives to all theſe rocks a yelloviſh caſt. The beds of theſe ſchiſtuſes are alſo ſituated according to a former obſervation, but are almoſt vertical.

This inſulated rock, in the midſt of ſnow, appeared to my guides a delightful place, an iſland of Calypſo; they could not prevail on themſelves to quit it, and ſeemed determined to paſs the night there. In the abridged relation has been ſeen what trouble I had to make them leave it.

From thence in an aſcent of about thirty-five minutes we attained the firſt great platform of ſnow which preſents itſelf in this route. The declivity of this platform is from ten to twelve degrees, but it is a plain in compariſon of the declivities we had climbed.

At our left lay the Aiguille du Midi, which began viſibly to lower to our right; the Dome of Gouté, where the diſſolved hornblende predominates. The ſummit of this dome cut almoſt a ſharp point on our ſide, covered with a roof of ſnow, half circular, like the arch of a bridge, and crowned by a continuation of thoſe enormous blocks of ſnow of a cubical form which I have named *feracs*, preſented the moſt ſingular and magnificent view. Before us the ſummit of Mont Blanc, the object of our undertaking, ſtill appeared to us of a prodigious height; at its left, the rocks which we call its ſtairs, and ſome very ſuperb pieces of ſnow, which by the dazzling of the ſun appeared ſtrikingly ſingular and beautiful.

It took us twenty minutes to traverſe this platform; and this time appeared long to us, for ſince the laſt voyage of Jaques Balmat, it had been covered by two enormous avalanches of *feracs*, which fell from the Dome of Gouté; we were obliged to croſs over theſe avalanches under the continual fear of being overtaken by others. I had however the pleaſure of obſerving thoſe *feracs* which we ſeldom have an opportunity of viewing near us. I meaſured ſome which were more than twelve feet every way; the bottom, or that part which had united with the rock was formed of white, tranſlucid ice, and more compact than ordinary ice. The oppoſite ſide which had been originally the top, was ſtill of ſnow, though a little hardened, and there is ſeen in the ſame block all the ſhades between theſe two extremes. We were ſurpriſed to find that ſeveral of theſe blocks had arrived there without being diſfigured, and even that they had ever come there, for the Dome of Gouté, from which they were detached is at a great diſtance, and the declivity is not very ſlanting: without doubt they had ſlided in the morning on

the ſnow which had been frozen and hardened by the cold of the night, and their own velocity had been very great.

From this platform we were an hour aſcending a declivity of thirty-four degrees, which brought us to the ſecond platform where we were to ſleep.

We had at firſt long and ſerious deliberations reſpecting the choice of the place we ſhould fix the tent under which we were all to collect to encounter the cold of the night, of which the guides had formed to themſelves ſo frightful an idea. Beſides the cold we had two other dangers to guard againſt, the one from above, the other from beneath: the buſineſs was to chooſe a ſituation which ſhould ſcreen us from the danger of the avalanches which might fall from above, likewiſe from that of crevices concealed by ſuperficial ſnow. The guides trembled at the thoughts of this ſnow loaded with the weight of twenty men collected in a ſmall ſpace, and ſoftened by the heat of their bodies melting and giving way all of a ſudden and ſwallowing us all up in the middle of the night. A frightful crevice whoſe winding we had traced in coming to this platform, and which might have extended, for what we knew, to the place immediately under us, proved at leaſt the poſſibility of ſuch a ſuppoſition. However, we found at about one hundred and fifty yards from the entrance of the platform a place which appeared to us ſecure from all thoſe dangers. There they ſet about ſhovelling the ſnow away, and fixing the tent over the place they had made for it. In the abridged account I have related the indiſpoſition my guides felt here from the rarity of the air.

After ſome moments of repoſe Marie Goutet and two others went on the Dome of Goûté to look for the ſtones covered with glaſs bubbles, that I have deſcribed in the ſecond volume, and brought back ſome very fine ones, and one among others very remarkable in its having ſprinkled on its ſurface the bubbles of a colour analogous to the part of the correſponding ſtone, blackiſh or greeniſh upon the hornblende, and whitiſh on the felſpar; which proves clearly that they have been formed by a ſuperficial fuſion of the rock, and of conſequence that thunder has produced them; in fact, by what other means could this effect be produced on the ſurface of a rock ſurrounded by ſnow? The ſame guides afterwards went to examine the declivity we had to get up the next day. They returned ſatisfied with having found covered with ſnow a crevice, which in the preceding journey had given them a good deal of trouble to get over; but the declivity by which we were to aſcend appeared to them extremely abrupt, and formed of very hard and ſlippery ſnow, and I ſaw clearly by this account that they were in doubt of my being able to get up it.

On mountains free from ſnow, and whoſe heights does not exceed one thouſand or one thouſand two hundred toiſes it is very pleaſant to get in good time to a ſleeping place; the coolneſs of the evening refreſhes you after the fatigues of the day, and you ſit down on the graſs or on a rock, are amuſed in obſerving the gradations of the light, and the changes which almoſt always accompany the ſetting of the ſun, and twilight.

But in high mountains covered with ſnow the cloſe of the day is extremely painful, one cannot tell where to place one's ſelf; if you ſit ſtill you are frozen, and fatigue joined to the rarity of the air deprives you of ſtrength and courage, neceſſary to warm yourſelf by exerciſe. This is what we felt in the ſituation we were now, to which we came about four o'clock. We were all frozen with cold; and waiting with the greateſt impatience till the tent was fixed; as ſoon as it was, we all got into it, and in a ſhort time the babbling of the guides and the nauſea of thoſe who where ſick, forced me to leave it.

I haſtened ſupper as much as poſſible. Afterwards they had great difficulty in fixing themſelves in ſuch a manner as they might be able to paſs the night; I was allowed to ſtretch myſelf in a corner; but as for the reſt they could only ſit down on the ſtraw

between each other's legs; and the air corrupted by the reſpiration of twenty perſons crowded into ſo ſmall a ſpace occaſioned our paſſing the bad night of which I have ſpoken.

The next day we ſoon traverſed the ſecond platform, at the entrance of which we had paſſed the night; from thence we aſcended to the third, which we likewiſe ſoon croſſed, and in half an hour came to the great declivity, by which in drawing to the eaſt, we got upon the rock which forms the left ſhoulder of the top of Mont Blanc.

At the beginning of this aſcent I was out of breath by the rarity of the air; however by reſting a moment every thirty or forty paces, but without ſitting down ſo far recovered my breath, as to be able in about forty minutes to get to the entrance of the avalanche which had fallen the preceding night, and which we had heard from our tent.

There we all ſtopped for ſome minutes in hopes that after having reſted our lungs and legs, we ſhould be able to get over the avalanche pretty quick and without reſting to take breath, but in that we deceived ourſelves, the ſort of wearineſs which proceeds from the rarity of the air is abſolutely inſurmountable; when it is at its height, the moſt eminent peril will not make you move a ſtep faſter. But I infuſed freſh courage into my guides by repeatedly telling them that this place was really the leaſt dangerous, becauſe all the looſe ſnow of the heights above us had already come away.

Beyond this avalanche the declivity became continually more ſloping, and on our left bordered on a frightful precipice; it was neceſſary to get over a pretty large opening, the paſſage of which was incommoded by a rock of ice, which forced us to the border of the declivity. The foremoſt guides had cut ſteps here and there on the hard ſnow as they went on; but as they had left the ſpaces too long it was neceſſary to take ſuch long ſteps that one ran the riſk of miſſing ones footing, and ſliding without remedy to the bottom. At laſt, towards the top the thawed ſurface became thinner; then it broke under our feet, and underneath it eight or nine inches of crumbled ſnow, which reſted on a ſecond cruſt of hard ſnow, into which we ſunk to the calves of our legs, after which we ſlided down the ſide of the precipice, to which we were only held by the upper cruſt, which thus found itſelf loaded with a great part of the weight of our bodies; and if it had broken we ſhould infallibly have ſlided to the bottom; but I did not think of the danger, my reſolution was taken, I determined to go on as long as my ſtrength would enable me, and I had no other thought than that of advancing with a firm ſtep.

It is ſaid when you walk on the border of a precipice you ſhould not look at it, and is true to a certain point; but the following advice is the reſult of my long experience. Before you engage in a dangerous paſſage you ſhould begin by contemplating the precipice, until you get quite familiar to it, and it has loſt its force on the imagination, and you can look at it with a ſort of indifference; meantime you ſhould ſtudy the way you ſhould go, and mark as you may ſay your ſteps: after which the danger is no more thought of, and you only think of following the preſcribed way. But if you cannot bear the ſight of the precipice and accuſtom yourſelf to it, give up the enterprize, for if the path be narrow, it is impoſſible to look where to place your feet without looking at the precipice at the ſame time: and this ſight if taken unawares dazzles you, and may prove your deſtruction; this rule of conduct in danger appears to me applicable to moral as well as natural caſes.

I employed there, and in other dangerous ſituations the manner of helping one's-ſelf by the guides, which appears to me the ſureſt, for him who employs them, and the leaſt inconvenient for thoſe who help him; it is to have a light but ſtrong, ſtick, eight or ten feet long; two guides placed the one before and the other behind, keeping the ſtick by the

the ſide of a precipice, the one guide at one end, and the other at the other, and yourſelf in the middle, with this walking fence you ſupport yourſelf as occaſion requires; this neither incommodes nor tires the guides, and may ſerve to ſupport themſelves in caſe one of them ſhould ſlip or fall into a crevice. It is in this attitude that the Chevalier Mechel has repreſented me in the large coloured plate that he had engraved from our caravan in the middle of the ſurrounding ices.

At length in two hours and a half, reckoning from the place where we ſlept, we attained the rock that I call the left ſhoulder of the ſecond ſtairs of Mont Blanc. In this place there opened to my view an immenſe horizon and quite new, for the ſummit being at our right, nothing concealed from our view the whole of the Alps on the ſide of Italy, which I had never before ſeen from ſuch a great height; but I reſerve this detail for the following chapter. There I had the ſatisfaction to ſee myſelf certain of attaining the ſummit, ſince the remaining aſcent was neither very ſloping nor dangerous. We here ſtopped to eat a bit, ſeated on the borders of this magnificent terrace; but the bread and meat we brought with us were frozen; yet the thermometer had never been lower than three degrees below the freezing point, and theſe aliments, ſhut in and covered in a doſſer carried on a man's back, ought to have been a little preſerved from the cold by the heat of his body. I am perſuaded that on the plain in the ſame degree of cold theſe aliments would not have been frozen, and very likely that there even a thermometer ſhut up in a doſſer would not be lower than 0; but in this rarified and conſtantly renewed air, the bodies or ſubſtances impregnated with water undergo a very great evaporation, and on that account imbibe the cold more than the dry ball of a thermometer: at nine in the morning, the thermometer was at half a degree above 0, and my hygrometer at fifty-nine. The naked rocks that we met there, and which form two ſorts of black and projecting ridges, which are very well ſeen from the borders of our lake, to the left of the higheſt ſummit of Mont Blanc, are of granite, here reduced to ſcattered fragments; there, in ſolid rocks divided by pretty near vertical fiſſures, the direction of which is conformable to that which generally reigns in theſe mountains, that is to ſay, from N. E. to S. W., and which in conſequence I looked upon as beds.

The felſpar which enters into the compoſition of theſe rocks is white bordering on grey, or on green, or on a reddiſh colour; it gives by the blow-pipe a glaſs, from which may be obtained globules of 0, 6, tranſparent, without colour but full of bubbles.

This felſpar is ſometimes pure, covered or even mixed with a grey ſubſtance verging on ſea green; without brightneſs, earthy, brittle, ſtripped with a grey whiteneſs. This ſubſtance appears to be of an earthy ſteatite; it is difficult to get fragments of it free from felſpar; thoſe which I have been able to ſeparate, have melted by the tube into green-glaſs, tranſlucid and of an extremely fat aſpect. They diſcolour on the fibres of ſappare, and diſſolve it with effervescence.

The whitiſh half tranſparent quartz, which enters into the compoſition of this granite, appears fattiſh on breaking; a fragment of a fifteenth of a line in length, by a thirtieth in thickneſs or of 0,067, on 0,033, fixt at the extremity of a looſe thread of ſappare, became quite round at the flame of a blow-pipe, in looſing a little of its tranſparence which under this volume appeared perfect, and formed in itſelf ſome bubbles in its interior. This quartz is then more fuſible than rock cryſtal, in the proportion of 0,035 to 0,014.

Theſe granites are frequently mixed with hornblende, ſometimes blackiſh, ſometimes bordering on green.

There is alſo ſeen here chlorite often of a green colour, ſometimes in neſts, and even in thick maſſes. It is tender but not crumbly; of a very fine grain, and its ſmall parts

ſeen

ſeen through a microſcope, appears like ſmall blades very tranſlucid, of a clear green, but they have not the regularity of thoſe of St. Gothard which I have deſcribed. This foſſile, as well as the hornblende, appears to ſupply in theſe granites the place of mica, which only ſhews itſelf in very ſmall and ſcarce blades.

Some of theſe granites appear rotted, there are obſerved in them ſmall cavities of an angular, irregular form full of a ruſty browniſh duſt. In breaking theſe granites there is found in their interior parts ſmall brown pyrites tarniſhed on the outſide, but brilliant and of a very pale yellow inſide, and whoſe fragments are attractable by the loadſtone. It is from the mixture of theſe pyrites that theſe cavities are formed. My guides found ſome fragments of theſe ſame granites, in which are ſeen cubical pyrites of three or four lines in thickneſs, which on breaking appear very brilliant, and of a braſſy high coloured yellow; they do not alter on being expoſed to the air.

On theſe rocks are alſo found ſome quartz with ſome veins and neſts of delphinite or green ſchorl of Dauphiné; it is but confuſedly cryſtalized, but to be diſtinguiſhed by its ſwelling under the blow-pipe, and the black and refractory ſcoriæ into which it changes.

In ſome places theſe granites degenerate into irregular ſchiſtoſe rocks, formed of quartz and felſpar, without any mixture of mica, and whoſe beds are ſeparated and covered with clay of a nut-brown ferruginous colour, and melts into a black glaſs.

In theſe ſame granite rocks are incloſed a layer of granitel, almoſt entirely compoſed of black and ſhining lamellar hornblende, and of grey felſpar tranſlucid, of the colour of ruſty iron at its ſurface.

To conclude, my guides found in theſe rocks a palaiopetre or primitive petroſilex of a grey colour bordering on green, tranſlucid at a line thick and even to 1, 2; ſcaly or ſhelly on breaking, hard, interiorly mixed with ſpots of a deep green, which are ſcarcely viſible but by a glaſs, and which appear to be of ſteatile; and alſo with ſome ſpots of pyrites, which in diſſolving ſtain of a ruſty colour the places near it. This ſtone in melting turns to a green glaſs like that of felſpar.

After having reſted and examined theſe rocks, I reſumed my journey about nine o'clock. As I had meaſured from Chamounie the heights of the parts of the mountain, I knew that I had not more than about one hundred and fifty toiſes to go, and that by a declivity of not more than twenty-eight or twenty-nine degrees, on a firm and not ſlippery ſnow, free from crevices, and diſtant from precipices, I therefore hoped to attain the ſummit in leſs than three-quarters of an hour; but the rarity of the air prepared me difficulties greater than I could have foreſeen. I have obſerved in the abridged relation, that towards the latter end, I was obliged to take breath every fifteen or ſixteen ſteps; moſtly ſtanding ſupported on my ſtick, but obliged about every third time to ſit down; this neceſſity of reſting was abſolutely inſurmountable; I endeavoured to overcome it, my legs failed me, I felt a ſwooning, and I was ſeized with a dazzling quite independent of the power of the light, as the double crape which covered my face perfectly ſcreened my eyes. As it was with extreme concern, that I thus ſaw the time paſs that I had hoped to dedicate to the making of my experiments on the ſummit, I made ſeveral attempts to ſhorten my reſts; I endeavoured for example not to exert my full ſtrength, and to ſtop at every four or five ſteps, but I gained nothing by it; I was obliged at the end of fifteen or ſixteen ſteps to reſt as long as if I had done it without intermiſſion, what is remarkable is that I did not feel this great uneaſineſs till eight or ten ſeconds after I gave over walking. The only thing which did me good and increaſed my ſtrength was the air of the north wind; when in aſcending I had my face turned to that ſide, and ſtrongly inhaled the air coming from thence; I could without ſtopping go twenty-five or twenty-ſix yards

The

The generality of theſe ſenſations felt by the twenty people of which our party was formed, and the details which I have given in my abridged account, cannot leave any doubt reſpecting the cauſe of theſe phenomena. They beſide perfectly agree with what is known as to the neceſſity of the air, and even of an air of a certain degree of denſity, for the preſervation of animals of a warm nature.

Pretty near the middle of this aſcent we paſſed near two ſmall rocks, projecting over the ſnow. The higheſt of them had been lately ſhattered, and its fragments thrown over the freſh ſnow to the diſtance of ſeveral feet. And as aſſuredly no body had been there to blow up this rock with powder, or break it with an iron bar, there can be no doubt but it was produced by thunder. Yet I could not diſcover any glaſſy bubble. In the abridged account I have ſaid that it proceeded from its conſtituent parts being extremely refractory; but this is an error, for I have ſince then ſeen fragments from the rocks of the Dome of Goûté, which are exactly of the ſame nature of the one now in queſtion, and which are covered with glaſſy bubbles. This difference proceeds rather from the greater or leſs violence of the ſtroke they have received, or of the leſs or greater moiſture then contained in them. Among theſe ſcattered fragments were ſeen leaves of granite in maſſes more or leſs thick, whoſe great faces were pretty near parallel to each other.

The lower rock preſents the form of an horizontal ſmooth table, its length from north to ſouth ſix feet ſix inches, and its breadth four feet from eaſt to weſt. This table ſinks into the ſnow from above or from the weſt; but from the lower ſide or from the eaſt its border riſes four feet eight inches ſix lines above the ſnow. It is a ſolid block without any viſible ſeparation. I carefully took its dimenſions that it might be known hereafter if it ſhould increaſe or diminiſh.

Theſe rocks, ſituated near two thouſand four hundred toiſes above the ſea, are intereſting on account of their being the higheſt of our globe examined by naturaliſts; Meſſrs. Bouguer and Condamine had been on the Cordilleres to an equal and even ſome toiſes greater height than our rocks (two thouſand four hundred and ſeventy toiſes): they did not underſtand ſtones, but as they ſay they have ſent a great many caſes full of ſpecimens from the mountains on which their trigonometrical operations had conducted them, I ſhould have been very deſirous to have theſe ſpecimens examined by judges.

The deceaſed Duke of Rochefoucault, a man as much diſtinguiſhed for his knowledge as his virtues, and who has been the innocent victim to the troubles of a country for which he had made and would ſtill have made the greateſt ſacrifices, was willing at my requeſt to examine theſe rocks with the greateſt care and attention, either at the Jardin du Roi or at the Academy of ſciences, of which he was a member, but he could neither find them nor gain any intelligence of what was become of them.

The ſcarcity of ſpecimens of rocks ſituated ſo high, and the conſequences that might be drawn from their nature in different ſyſtems of geology, engage me to give a particular deſcription.

They are granite in maſs, where hornblende and ſteatite take the place of mica, which is there rare, a bright ſun and a magnifying glaſs are neceſſary to be able to diſtinguiſh ſome white and bright ſcales; it is even doubtful if theſe brilliant particles, which it is impoſſible to take off, are really mica.

Felſpar is the prevailing part of theſe granites; it evidently forms about the three fourths of their maſs. Their cryſtals, pretty near parallelopepid, vary in ſize; ſome are ſeen an inch in length and ſix lines broad. They are of a dull white, feebly tranſlucid, of little luſtre, of the ſort I call dry; they yield by the blow pipe a tranſparent glaſs, but with bubbles, of which may be formed balls of 0,81, and of conſequence fuſible at 70 degrees of Wedgwood. On the filet of ſappare the bubbles diſſipate, and there remains a tranſparent

tranſparent milky glaſs, which ſubſides without penetrating or diſſolving. Theſe cryſtals of felſpar appear here and there of a tarniſhed green, cauſed by a ſlight mixture of ſteatite which covers them.

The quartz which forms a little leſs than the fourth of the maſs, is grey bordering on violet; uneven in breaking, brilliant in places, not ſcaly but conchoid. Its fuſibility is pretty near the ſame as that of other granitic quartz.

The hornblende, which forms too ſmall a portion to be of much account, is black bordering on green; it ſhews ſome tendency to a ſcaly and brilliant form, but is oftenеſt twinkling and almoſt earthy. It fuſes into a black bright glaſs, cavernous in its interior, and which on the thread of ſappare paſſes to a bottle browniſh green, changes colour afterwards, and diſſolves with ſome effervеſcence which proves a mixture of magnetical earth.

The earthy ſteatite likewiſe forms a very ſmall part of thoſe granites.

All theſe granites have their natural diviſions covered with a green or black cruſt. This is an earth reſembling the chlorite, of a blackiſh green, ſhining a little at its exterior ſurface, but of a clearer and more earthy green in the fractures, brittle, the ſtreak greyiſh green, turning brown under the blow-pipe, then giving a button = o, 3, or fuſible at the 189th degree of Wedgwood. This button has a metallic aſpect, a little unequal, and of a little tarniſhed or iron melted colour; and not only this button but all the parts that the power of the flame has made brown, are very ſtrongly attractable by the loadſtone. A ſmall fragment tried on the filet of ſappare, infiltrates immediately like ink into the pores, then turns to a tarniſhed brown, and at length entirely loſes its colour, but without appearance of diſſolution.

The green cement which covers other parts of this granite in their ſpontaneous diviſions is leſs obſcure, ſhining enough, tranſlucid, ſoft and a little greaſy to the touch, brittle and eaſily ſtreaked into grey, changing by the blow pipe into a tranſlucid glaſs, which becomes tranſparent on the filet of ſappare, and diſſolves it, but without ebullition. This cement appears to be of the nature of ſteatite; I was not able to procure any pieces large enough to meaſure its fuſibility.

The latter part of the aſcent between theſe little rocks and the ſummit was, as might be ſuppoſed, the moſt difficult for the reſpiration; but at length I gained the long wiſhed for point. As during the two hours this painful aſcenſion coſt me, I always had under my eyes almoſt every thing to be ſeen from the ſummit, my arrival on it was not attended with that ſurpriſe one might imagine. The greateſt pleaſure I felt was that of ſeeing my great uneaſineſs at an end; for the length of this ſtruggle, the recollection of the ſtill poignant ſenſations the difficulties this victory had coſt me, cauſed me a great deal of irritation. The moment I had got to the higheſt top of the ſnow with which this ſummit is crowned, I trod upon it with a ſort of anger rather than felt a ſentiment of pleaſure. Beſides my object was not ſolely the getting to the top; I wanted there to make obſervations and experiments which would make this undertaking valuable; and I was very much afraid I could make but a very ſmall part of what I had propoſed; for I had already found even on the platform where we ſlept, that all experiments attended with care, cauſed fatigue in this rariſied air, and that becauſe without thought you hold your breath; and as it is neceſſary to ſupply the rarity of the air by the frequency of reſpiration, this ſuſpenſion cauſed a ſenſible uneaſineſs, and I have been under the neceſſity of reſting and taking breath after having obſerved an inſtrument of any ſort, as one ſhould do after having got up a ſteep hill. Still the ſight of the mountains gave me a ſenſible ſatisfaction, of which a more particular account will be ſeen in the following chapter.

But before the contemplation of thoſe diſtant objects I ſhould ſay a word of the form of this ſummit, and finiſh the deſcription of the rocks neareſt to it.

The top of Mont Blanc is not a plain but a ſort of lengthened ridge, ... from eaſt to weſt, pretty near horizontal in its higheſt part, and lowering at the two extremities in angles of from twenty-eight to thirty degrees. This ridge is ſo uneven towards its ſummit, that two perſons cannot walk a breaſt; but it widens and rounds in deſcending to the eaſtern ſide, and takes towards the weſt the form of a projecting roof, directed to the north. All this ſummit is entirely covered with ſnow; not a portion of rock to be ſeen till you go ſeventy or eighty toiſes lower down.

Of the two fronts of the ridge, that to the north is of the moſt rapid deſcent, and becomes afterwards ſtill more ſo, and terminates by joining frightful precipices. To the ſouth on the contrary this ſlant is gentle, and lower down forms a cradle, riſing itſelf in a contrary way to the ſouth, where it forms above the Allée Blanche a pretty high point, under which is a projecting roof of ſnow, and under this roof are the rocks which I ſaw from the heights of Cramont, and took for the ſummit becauſe they concealed the real ſummit covered with ſnow. This projection to the ſouth is the cauſe that when the ſummit of Mont Blanc is viewed in profile from the eaſtern or weſtern ſide, for example, from St. Bernard or Lyons, there is ſeen beneath it a ſort of hook turned upwards towards the ſouth which conceals it.

Whilſt I was employed in making theſe obſervations, Jaques Balmat offered to look for ſome bits of thoſe rocks which I have juſt mentioned, and of which the turned-up point above the Allée Blanche is formed. I eagerly embraced his propoſal. As he had been well reſted and felt himſelf hearty, he ſet out very eagerly in a run, but he ſoon found his breath fail, and to recover it was obliged to extend himſelf at full length on the ſnow, however he recovered, and with a ſteady pace reſumed his intention and brought me three ſtones of the following ſort.

1. Some granites perfectly like thoſe before deſcribed.

2. Some ſienites or granitelles, that is to ſay, rocks compoſed of layers of black hornblende and white felſpar, alſo laminar, but both in ſuch ſmall quantities that I may as well give theſe rocks the name of *trapp*, after the definition that I have before given.

3. A primitive petroſilex or *palaïopetre* of a grey pearl hue, tranſlucid at the thickneſs of two thirds of a line, of a ſcaly fracture in great and ſmall ſcales, hard enough to produce ſparks of fire, but yet yielding into grey ſtrakes by a ſtrong point of ſteel. With the blow pipe may be formed globules of 0.45; which indicates the fuſibility of the groſs matter at 126 or 130 of Wedgwood. This is a grey half tranſparent glaſs, with bubbles, which on the filet of ſappare gains in tranſparency and ſubſides, but without penetrating or diſſolving, and even without freeing itſelf entirely from its bubbles.

This *palaïopetre* encloſes veins from one to three lines in breadth, which croſs each other under different angles, and ſmall neſts of leek-green hornblende, confuſedly criſtallized, or in lamina ſeldom ſtrait, or in moderate ſized fibres.

The higheſt acceſſible rocks to the north and under the ſummit, are thoſe which are ſtrewed with glaſs bubbles, and of which I have for the firſt time made mention in the ſecond volume of theſe travels, but which merit a more exact deſcription.

1. Granitelle (*ſyenit* of Werner) compoſed for the moſt part of white felſpar, almoſt opaque, of a laminar fracture, but not very diſtinct, and of hornblende of a greeniſh black, laminar and brilliant in criſtals, often by themſelves, although often of undetermined forms, of the ſize of from one to two lines. The fuſibility of this felſpar is the ſame as that I have deſcribed; and that of this hornblende is of 90 degrees of Wedgwood, anſwering to a ball of the diameter of 0.6.

2. The ſame granitelle, but in which hornblende predominates, having but very little felſpar. This ſtone in ſome places takes a ſchiſtoſe texture.

It is underſtood that between theſe two numbers may be found intermediate varieties.

3. Schiſtus of a greeniſh grey, tender, compoſed of *cornéenne*, or according to Werner of ſchiſtoſe hornblende, in ſome places ſtrait, in others waving, ſomething brilliant on their greateſt faces; and of white felſpar in very ſmall blades intermixed with the *cornéenne*.

This ſchiſtus is often found adhering to Nos. 1 and 2. It is fuſible into globules of a clear bottle green glaſs colour, mixed with white ſpots of the diameter of 0. 7, which indicates the 81ſt degree. It is principally on this ſchiſtus that the glaſſy bubbles are ſeen; ſome are of a pretty clear green, and others of a dark bottle green. But in it is alſo found pure black hornblende, and there the bubbles are black. They are alſo found though more rarely in the white felſpar, and there they are whiter and a little more tranſlucid than the ſtone from which they have been lifted up, by the caloric detached by the thunder.

Geological Obſervations.

The firſt thing that ſtruck me in the view of the whole of the high ſummits under my eyes, from the top of the higheſt among them, is the ſort of diſorder which reigns in their diſpoſal.

When from our plains, or even from the tops of the ſummits adjacent to Mont Blanc, for example, from Brevent or Cramont, one conſiders the chain of which Mont Blanc forms a part, it appears that all theſe coloſſes are ranged in a line; and from this appearance is called a chain. But when you take a bird's eye view of them, the illuſive appearance vaniſhes entirely. In fact, the mountains, particularly thoſe to the north of Mont Blanc, in Savoy and in Swiſſerland, appear ſufficiently joined to form a ſort of chain. But the primitive ones do not ſhew themſelves under that appearance; they ſeem diſtributed in great maſſes or in groupes of a varied and fanciful form detached from each other, or at leaſt appear to be only joined by chance without any regularity.

Thus to the eaſt the Aiguilles of Chamouni, of Courtes, of Tacul, the tops of which mixed with rocks and ſnow, and ſeparated by glaciers, offer the moſt magnificent ſpectacle, form a triangular group almoſt detached from Mont Blanc, and only united by its baſe.

In like manner to the ſouth-weſt, the Mont Zuc, the Rogne, and the other primitive mountains on the North of the top of the Alleé Blanche, form alſo a ſort of triangular group, ſeparated from Mont Blanc by the valley of the glacier of Miage; and which is likewiſe united only to Mont Blanc by the baſe of the mountains which cloſe this glacier to the north.

And laſtly, Mont Blanc itſelf forms an almoſt inſulated maſs, the different parts of which are not in the ſame line, and do not ſeem to have any agreement in ſituation with the two other groups.

In taking a ſtill further view, I was confirmed in the ſame obſervation; the primitive mountains of Italy and Swiſſerland which I was near enough to view, only preſented to my ſight groups or maſſes ſeparated without order or regular form. I did not ſee the appearance of chains except in thoſe whoſe diſtance was too great for the ſight to take in.

This obſervation excludes all idea of a regular formation, or at leaſt it muſt be traced back to an epoch anterior to that which has given them their preſent form.

Yet notwithſtanding this irregularity in the forms and diſtributions of the great maſſes, I obſerved ſome reſemblances, as poſitive as important in the ſtructure of their parts. All that I could diſtinctly ſee, appeared to me to be compoſed of great vertical leaves,

leaves, and the generality of these in a like direction, pretty nearly from north-east to south-west.

I had above all a great pleasure in observing this structure in the Aiguille du Midi. In Chapter XVIII. of the second volume is seen with what trouble and danger I attempted to make the tour of the base of this Aiguille, to study its form; and with what regret I found my eager curiosity opposed by inaccessible walls of granite which surround its base. Here I saw it under my feet, and described at my ease all its parts.

The second day of the journey, on arriving at the border of the platform on which I passed the night, I saw to the north-east a little below me some broken pinnacles; I asked Pierre Balmat what they were; and when he informed me what I presently discovered myself, that it was the summit of the Aiguille du Midi, I felt a satisfaction difficult to describe.

In continuing to ascend I did not lose sight of it, and I am certain that like the Aiguilles of Blaitiers it is entirely composed of magnificent plates of granite, perpendicular to the horizon and in a direction from north-east to south-west. Three of these plates separated from each other form the summit, and similar ones gradually lessening as they rise, form the south front at the side of the Col du Geant.

I believe then it was an illusion when in observing from bottom to top, it appeared to me to be composed of plates applied round an axis like the leaves of an artichoke; or at least if there are some leaves disposed in this manner, they are only the lowest ones; for in diving as I may say into its interior, I saw all its leaves perfectly parallel to each other.

I have given the details of this summit as an example; all those which I could see distinctly appeared to me pretty near in the same form and direction. If there were some exceptions they were local and of little extent.

This great phenomenon explains itself, as I hope to shew in the theory, by the *refoulement* or eruption which has raised those beds originally horizontal.

But another question which I ardently desired to resolve, is to know if these great plates preserve the same nature from their bases, which I had long known, to their summits, which I had not yet seen so near. I was fully satisfied; I found that the summit of these peeks, as well those which we laid hold of, and of which a description has been given in the foregoing chapter, as those which we found near enough to examine distinctly the substances of which they are formed, are without doubt like their bases, of granite, granitelle, of veined granite, and other stones of the same class.

This circumstance is so important for the theory, that although I might have observed it on mountains less high, and that it appeared most probable for the others, it gave me extreme satisfaction to make it general by a direct observation.

In effect this proves the remarkable property of mountains in vertical beds, which is that their nature is the same from their base to their summit, be the height of their summits what it may. On the contrary, in those whose beds are horizontal, or at least nearly so, the nature of the same vertical part of the mountain is seen to change in proportion to its height. The Buet, for example, rests on a primitive base, whilst its summit is secondary. The Furela del Bosco has its bottom of hard veined granite with the grain large; and in proportion as one gets higher these granites are seen to degenerate into foliated rocks, of a quite different nature. The same observation is verified as we shall see, on Mont Rose and Mont Cervin.

This difference holds good with the difference of the cause which has given to these different sorts of mountains the situation and form they now have.

In thoſe which have vertical trenches, each trench is one and the ſame bed, in the proper ſenſe of this word, and not the production of any accidental fiſſures, as ſome naturaliſts have pretended.

Theſe beds were originally horizontal, and have only been raiſed by a revolution of our globe: it is then very natural that each of them may have preſerved to its utmoſt height the ſame nature it had from its firſt formation.

On the contrary, the mountains divided into horizontal trenches have only been raiſed by an accumulation of different beds or layers, compoſed of cryſtallizations, or depoſits the nature of which varied according to the diverſity of matter contained in the waters where they have been formed.

From this theory it follows, that the central rocks of a maſs all compoſed of vertical beds, ſuch as Mont Blanc, ought to have been originally buried in ground of a very great depth. In effect, if it is ſuppoſed either by a riſing up, as I think, or by the rupture of the cruſt of the old earth, as M. De Luc believes, that theſe beds, horizontal in the beginning, are become vertical; more, if it is ſuppoſed that the bottom of a valley, that of Chamouni for inſtance, be the ancient ſurface of the coat, it will follow from hence that the horizontal diſtance of the valley of Chamouni to a part which anſwers to the ſummit of Mont Blanc, ſhould be pretty near the meaſure of the thickneſs of the cruſt which has been ruffled up or broken, and that in conſequence the ſummit of Mont Blanc, whoſe actual height is about a league above the ſurface of our globe, had been originally buried two leagues below the ſurface.

It ſhould not be then in the ſubterraneous depths of the mines of Poland or Northumberland, but on the ſummits of mountains, in vertical beds, that it is neceſſary to ſtudy the nature of the primitive world, at leaſt as far as we could attain.

This idea has given, in my mind, a great intereſt to the ſpecimens that I have taken from the higheſt rocks of Mont Blanc, and has engaged me to deſcribe them with great care; I always regard them with new pleaſure; I ſtudy them, I interrogate them; and methinks that if they could anſwer my queſtions, they would unveil to me all the myſteries of the formation and revolutions of our globe.

I was ſtill more confirmed in thoſe ideas when, in conſidering the rocks neareſt to the ſummit, I recollected that the greateſt number of them contained no mica, and that the others contained only ſcales of it, ſo ſcarce and ſmall, that by none that I broke off could I determine their reality. For it is a fact, that the matter torn aſunder by the ſubterraneous fires at the bottom of the earth to a great depth, very rarely contains mica. M. de Dolomieu met only one micaceous rock in the matter vomited by Mount Etna, and I have not ſeen any in the volcanos of Auvergne or Briſgaw; yet I have ſeen ſome in thoſe of Veſuvius, as has M. Noſe in the lavas of the Lower Rhine; but it is becauſe the ſubterraneous fires do not always take at the ſame depth the ſubſtances they throw out: it is ſufficient for my obſervation, that the mica is much ſcarcer in the bowels of the earth than at the ſurface.

It would have been natural to think that the higheſt ſummits of the Alps ſhould be found near their centre, or at leaſt towards the middle of the breadth of the maſs of primitive mountains; yet it is not ſo. From the ſummit of Mont Blanc is ſeen that to the ſouth; on the ſide of Italy, there are many more high ſummits than to the north, on the Savoy ſide; ſo that this high ſummit is found near the northern border of the whole of the primitive mountains. So alſo is the view finer and more intereſting on the ſide of Italy, for the ſecondary mountains to the north, terminated by the blue and monotonous line of the Jura, preſent neither variety nor grandeur; and our plains, even

our

our lake, ſeen obliquely through the vapours of the horizon, preſent only feeble tints and few diſtinct objects. On the contrary, on the ſouthern ſide, the horizon concealed by the high ſummits, varied in their groups and forms, mixed with rocks and ſnows, and interſected with green valleys, preſents a whole equally ſingular and magnificent. But above all, as I have already ſaid, the aiguilles and the glaciers of all the environs of Mont Blanc, formed in my mind, all at once, the moſt raviſhing and inſtructive ſpectacle.

In fine, from this fine obſervatory I ſeized at one glance, or at leaſt without changing ſituation, the whole of the grand phenomenon that I had before ſeen in detail, that of the raiſed beds of the mountains at the ſide of Mont Blanc, and the high ſummits of its neighbourhood. Such, towards the north, were the mountains of Repoſoir, thoſe of Paſſy, of Servoz, the Buet; thoſe to the ſouth, the Col-Ferret, Great St. Bernard, and then the chain of Cramont, the ſummit of which is not ſeen, as I have already ſaid, from the ſummit of Mont Blanc, but of which the after-part is ſeen to border the Allée Blanche, and then to join itſelf to the Tarentaiſe mountains.

Farther on, at the other ſide of theſe ſharp-pointed chains againſt Mont Blanc, are ſeen ſome whoſe edges are turned the other way, according to the law I have made known in the firſt volume, and all theſe phenomena perfectly agree with the ſyſtem of *refoulement* or eruption, of which in other places there are ſo many proofs.

I have thus happily finiſhed theſe obſervations. I began with them under the apprehenſion that the ſudden coming of a cloud, ſo frequent in thoſe high places, might have enveloped me, and deprived me of the power of accompliſhing what I had moſt at heart.

JOURNEY

TO THE

SUMMIT OF MONT PERDU,

THE HIGHEST MOUNTAIN OF THE PYRENEES.

BY L. RAMOND,

Member of the National Inſtitute; and read in that Society the 19 Floreal, an 11.

I HAD convinced myſelf, by various attempts to reach the ſummit of Mont Perdu, that it was only by its eaſtern ſide that it could be accompliſhed; and I was perſuaded that even its peak might be aſcended by the way of the defile of Fanlo, unleſs any inſurmountable obſtacle lay concealed from me, in the ſpace which ſeparates the peak from the defile.

It was therefore towards this doubtful intervening ſpace that all my attention and thoughts were directed, and I had more than once or twice urged my guides to explore it; two of whom at length, laſt ſummer, determined to gratify me, and I marked their route for them; but having reached the foot of the mountain, they thought proper to go from my inſtructions, and to truſt to the guidance of a Spaniſh ſhepherd, leſs acquainted than themſelves with Mont Perdu; and they had nearly paid very dear for ſo doing. This journey was indeed perilous, being obliged to paſs a night (ſo ill had they contrived for themſelves) beneath the glacier of the peak, without ſhelter, without fire, and almoſt without food. The ſecond day, however, they conquered the laſt difficulties, and reached the ſummit, but ſo worn out, that they had ſcarcely ability to explore it; and ſo confuſedly did the man who came to me with the tidings of their ſucceſs deſcribe the places, that I was more than once, in the courſe of his narrative, apprehenſive they had totally failed in their object: one circumſtance was evident enough, which was, that the path they took was not the proper one.

Be this as it may, I inſtantly determined upon my departure, reſolving to follow ſcrupulouſly the way I had by my eye traced out to myſelf, by which I did not doubt I ſhould ſteer clear of thoſe dangers to which my guides had been expoſed; nor was I diſappointed: I had conceived the true rout, and found myſelf upon the ſummit of Mont Perdu, leſs exhauſted by the labour of the journey than I was by exploring its baſe. I took my departure from Barège the 9th of Auguſt 1802, and having gained the valley of Gidre and Eſtaubé, I took my firſt ſtation on the height of Port Penide, the exact elevation of which it was very deſirable to aſcertain, and by the obſervation of the barometer I found it to be one thouſand two hundred and ninety-one toiſes; but the Port du Penide is by no means the higheſt or moſt difficult paſſage of this portion of the Pyrenees.

This calculation afforded me the opportunity of aſcertaining with preciſion the extent of the leſſer chain of permanent ſnows, which terminated at the abſolute elevation of one thouſand two hundred and fifty toiſes.

I had a good ſpirit-level, which furniſhed me alſo with a very intereſting reſult: I proved by it that the defile of Pimeni, from which I was ſeparated by the valley of Eſtaubé, was preciſely of the ſame elevation with the Port de Penide, and likewiſe with the defile of Fanlo, divided from me by the valley of Béouſe. This conformity of e eva-

tion between three correſponding and alike diſpoſed points, is a diſcovery by no means immaterial to a geological hiſtory of Mont Penide.

But in vain was our aſcent to the defile of Fenlo: it was indiſpenſable we ſhould retrograde; we were to deſcend conſiderably ere we could re-aſcend. We directed ourſelves obliquely towards the enormous walls which bear up the lake of Mont Perdu and its terrace, which brought us to the point from whence the torrent precipitates itſelf, in a frightful cataract, to the bottom of the valley of Béouſe.

Here we found ourſelves upon a ſmall well turfed, but very inclining platform; and here too we met with a flock of ſheep under the guidance of a ſhepherd, a ſpecies of ſavage, unable to underſtand us even in his native language. Mont Perdu was ſuſpended over his head, yet was he as little acquainted with it as if it had conſtituted a part of the Andes. He had, however, a knowledge of the defile of Fanlo, here deſigned under the name of *Niſcle*, and he engaged to conduct us to it the next day. We, in conſequence, paſſed the night with him in the open air, amidſt the vapour of the cataracts, and the angry portents of a threatening tempeſt on every ſide. I took the height of this ſtation, and found the mean between two obſervations to be one thouſand and three toiſes.

Our firſt labour in the morning was to croſs the torrent which diſcharges itſelf from the lake; its depth, its rapidity, and particularly the coldneſs of the water, rendered this effort of ſome difficulty. The water cauſed a riſe of two degrees only in the thermometer above the freezing point.

From this place until we reached the ſummit of the defile of Niſcle, we experienced no other difficulty than what was occaſioned by the extreme inclining of the ſlopes. I aſcertained the height of the defile to be exactly upon a level with that of the Penide, as it is alſo with the border of the terrace near the lake of Mont Perdu; the lake itſelf is ſomewhat higher. I found, on trial, its abſolute elevation to be ſomething more than thirteen hundred toiſes. Here then we have four excavations of equal form and height, viz. the valley of the lake, the defile of Niſcle, and thoſe of Pimene and Penide; which I conſider as the remains of an ancient valley, hollowed by the currents, after the deſtruction of the beds of Mont Perdu, and poſſibly before their emerſion; a valley which afterwards may have been tranſverſely cut by the great rents which now actually form the vallies of Béouſe, d'Eſtaube, and Gavarmi. Hitherto I had proceeded upon aſſured grounds; I have already deſcribed what is ſingular upon this ſecondary ſoil, compoſed of irregular beds thrown up by the accidents of nature, the receptacles alternately of marbles, breccia, limeſtone: ſome compact, and mingled with flint; others groſs, and more or leſs mixed with clay and ſand, and all ſprinkled with zoophytes and teſtaceous fragments. I now found myſelf upon the continuations which conſtitute the ſummits of Mont Perdu, the ſoil of which, it was evident to me, had never changed either its poſition or nature. I had never before been in a ſituation ſo convenient, correctly to notice its ſtructure. The ſide of the mountain which preſented itſelf to me, that commands the defile to the eaſt, aroſe to a perfect peak, ſo that the view I had of it was completely tranſverſal, and perfectly characteriſtic of the poſition of the beds which formed the ridges of the mountain I was about to climb.

The whole of theſe beds, allowance being made for their windings, incline generally ſo much to the north, that the greateſt part of them hardly vary from a vertical ſituation, and have a direction very viſibly parallel with the general direction of the chain; a circumſtance not otherwiſe to be explained or accounted for than from ſome violent convulſion of nature; and it is not to be doubted that this irruption has taken place under the very waters, which have removed theſe beds, for their upper trenches are co-

vered with thick layers of ſhelly free-ſtone, inclining rather to the northern horizon, and which differs in nothing beſides from the free-ſtone found in the beds.

What I had the opportunity of ſeeing upon the mountain of Niſcle, I was about once more to explore on the ſummit of Mont Perdu, but in portions, and in detail, ſurrounded by the ſnows and ice, and emboſomed midſt the diſorder and ruins of nature, where it is hardly poſſible to diſcern the order and ſtructure of theſe irregular interwoven ſhelves.

The firſt ſtages to the aſcent of Mont Perdu preſent themſelves to us to the weſt of the defile of Niſcle, and they preſent themſelves with an abruptneſs and grandeur which announce the avenues to its ſummit. Four or five terraces piled one upon another form as many flights of ſteps, covered in part either with ſnow or fragments, which tend not a little to facilitate the acceſs to theſe otherwiſe inacceſſible walls. The firſt of theſe fragments are blocks of more than ordinary ſize, and apparently belong to the chain of the paraſite bed of free-ſtone which copes the mountain of Niſcle. It muſt be noticed, I apply the name of free-ſtone to thoſe gravelly calces, of which ſand conſtitutes the moſt apparent part. Teſtaceous fragments are found in thoſe free-ſtones; and with them fragments of a calcareous ſchiſtus, ſtrongly polluted with clay, and ſpread over with a ſmall extended polypus, moderately compreſſed, ſometimes ramified, its ſurface pierced with ſimple pores, but remarkable for a ſmall projecting belt which ſurrounds them.

I very ſhortly paſſed beyond theſe blocks, and continued my rout, aſcending obliquely from the north-eaſt to the ſouth-weſt, that is to ſay, in a direction which cut nearly in a right angle the general direction of the ridges, and ſoon reached the ruins which belong to the continuation of the beds of which even the maſs or body of the mountain of Niſcle is formed. Here I recognized the compact ſtone of Marboré, black or grey within, but ſoon whitening when expoſed to the air, and ſpreading itſelf in a ſpontaneous manner in ſmall irregularly angled fragments. It is moſt generally fetid, but in no region did I experience it ſo much ſo as in this; the very treading it was ſufficient to infect the air with an inſuperable ſmell and a nauſea, bearing no poſſible relation to that cauſed by percuſſion in the common hepatic and bituminous ſtones.

It took us near an hour to croſs theſe fragments, or rather theſe wrecks, and we were much overpowered in this part of our journey by the efforts required as well to climb the exceſſive ſlanting declivities, as to ſtruggle inceſſantly againſt the looſe earth, tending invariably to the precipice. At length we found ourſelves upon the upper terrace, and on a range of rocks, which at the firſt forms a narrow ridge, but widens by degrees, and becoming ſafer, brings us to a ſort of valley where the ices begin which encircle the peak.

In the bare and uncovered part of this extended ridge I noticed ſome large pieces of a compact calcareous blackiſh ſtone, crouded with great lumps of ſilex of the ſame colour; they ſlightly inclined from the vertical to the ſouth, and follow the ſame direction with the ridge and chain. It is a repetition of beds of the ſame nature I have noticed in the Porte de Penide, Pimené, and elſewhere. Here, as there, they appear to be of the number of thoſe whoſe direction is moſt evident. They were diſtinguiſhable by me on the mountain of Niſcle, yet in my view, where this intrenchment widens itſelf from the baſe to the ſummit of its weſterly ſide. The kidneys of ſilex are of larger volume there than at Ports de Penide, and are at the ſame time exceedingly irregular; though I found one figured like an hexadrical oblique priſm, which ſingular ſpecimen I have depoſited in Mr. Hauy's collection; had I met with it in the very heart of the rock, I ſhould have been tempted to examine the direct work of cryſtallization, but it was of the number of thoſe fragments ſpread over the ſurface of this ground; and as all the kidneys with

which theſe ſtones abound, are ſhattered in every ſenſe by ſtraight planes, the natural effect of retiring waters; I am warranted in the conjecture, that this priſm is a detached portion of a more conſiderable kidney, in which the fiſſures had accidentally met under the angles, which quartz particles have an inceſſant tendency to form.

At Port Penide there are many ſhells contained in this ſtone; here I did not perceive any, but it is probable ſome may be found; beſides, I have met with layers of a calcareous ſtone in theſe beds, very argillaceous, and much mixed with ſand, which contained ſo large a quantity of *nummularia*, as gave it an appearance of having been almoſt entirely compoſed of them. Theſe beds ſoon ſlip under the ices, and become no longer viſible. We now approached the borders of theſe glaciers, which have here their origin, and conſequently but of very gentle declivity. Nevertheleſs, we found the croſſing of them diſagreeable enough; ſometimes we found the ſurface hard and ſlippery, at others we ſunk up to the knees in the recent ſnows, fallen upon the ſummits in the month of June. Beneath this ſnow too, in our treadings, we were ſenſible of rents, in which we ran the riſk every inſtant, of being loſt. The expoſed clefts alſo intercepted our paſſage, and we had nearly been altogether ſtopped, at two hundred metres * below the ſummit, by one of them, which extended tranſverſly from the origin of the glacier, to the ſteep of the valley of Béouſſe. It was but three days before, that my guides had commodiouſly paſſed this cleft, by a bridge of ſnow, which was now diſſolved; and which it was now our buſineſs to effectuate by leaping, which we ſucceeded in, and thereby conquered the laſt obſtacle. I meaſured the depth of the cleft, and found it forty feet; and as the place where we croſſed, correſponded with the convexity of the mountain; it muſt evidently have been the place where the ice was of the leaſt thickneſs.

From thence I beheld the ſummit which had hitherto been conſtantly concealed from me, by the poſition of the declivities over which I had paſſed. It preſented itſelf in the form of an obtuſe cone, clothed in ſpotleſs, reſplendent ſnow; the ſun ſhone with uncommon pureneſs and brilliancy; but its diſk was ſhorn of its rays, and the ſky appeared of a deep blue, and ſo ſtrongly ſhaded with green, that even the guides were ſtruck with the ſtrangeneſs of its aſpect. The firſt tint has been obſerved on all the high mountains; but there is no example of the ſecond, and I am myſelf totally ignorant, to what this ſingular optical illuſion may be attributed.

At a quarter paſt eleven, I reached the ſummit, and, at length, had the gratification of contemplating, at my feet, the whole of the Pyrenees, and inſtantly ſet to work with my inſtruments. The wind blew very boiſterous from the W.S.W.; which threw difficulty in the way of my operation. I marked the ſtate of both the barometer and the thermometer at noon. M. Dangos made a correſpondent obſervation at Tarbes, with the inſtruments he took with him to Mount Etna; which have been carefully compared with mine. My barometer placed upon the creſt of the cap of ſnow, after due correction, ſtood at 18i. 11.14l.—at Tarbes it was found at the ſame time, to ſtand at 27i. 1.47l. The difference of logarithms then give one thouſand five hundred and fifty toiſes, for the vertical height of the meaſured column. On the other hand, the thermometer at Tarbes ſtood at 20° 5′—by Reamur's ſcale, and at the ſummit of the Peak, at 5° 5′ by the ſame ſcale; which leaves to be added, agreeably to Mr. Trembley's formula, 12.11 toiſes, and determines the height of the column to be 1562.11 toiſes—Now Vidal's trigonometrical operations fix the elevation of Mont Perdu at one thouſand five hundred and ninety-nine toiſes beyond that of Tarbes; which makes a difference of at leaſt 37 toiſes, or $\frac{1}{42.22}$ of the meaſured column. Mr. Laplace's formula augments this

* A metre is rather more than a yard.

difference,

difference, more than double; and ſo does Mr. Deluc's, but Schuckburgh's correction of the latter brings the reſult very exact to the formula of the former.

It is my intention to examine more carefully this obſervation, when I give an account of the whole of my barometrical obſervations; at preſent I ſhall content myſelf with obſerving that the wind was exceedingly tempeſtuous, and blew from the ſouthern region; and the ſky around me very portentous of ſtorm; and that all my obſervations, made under ſimilar circumſtances, have ever been ſhort of the heights of the places I would meaſure. I ſhall further obſerve that the correction of temperature, which has already been ſo often hazarded, muſt not here be confided in. Local circumſtances, infinitely varied, moſt certainly variouſly influenced every part of the ſame column of air it was permitted me to examine. In effect, if the thermometer, placed by the ſide of the barometer, on the lap of ſnow, and at four feet above the ſurface, announced 5° 5′ of heat, the ſame thermometer brought down to the ſurface of the ſnow fell to 2°, by reaſon of the abſorbent nature of the heat, which occaſioned a rapid evaporation of the ſurface. At the ſame time another thermometer, placed likewiſe in the ſhade, at four feet from the ſurface, but upon the ſouthern face of the peak, which the ſnows had left, indicated + 10°, and this ſame thermometer, placed on a level with the ſurface, and expoſed to the ſun, roſe to + 18.25. Finally, I muſt remark, and that too as a very ſingular and fortunate circumſtance, that Mont Perdu, and the Defile of the Giant, (Col du Geant,) where Sauſſure made ſuch a ſeries of valuable obſervations, we found to be preciſely of the ſame height, ſince the trigonometrical obſervations give to each one thouſand ſeven hundred and ſixty-three toiſes, of actual elevation; for the mercury retained its ſituation at the ſame point in both theſe elevated ſpots; and beſides the barometrical calculation of heights furniſhed reſults to Mr. Sauſſure ſo far below his geometrical proofs, that this illuſtrious naturaliſt has judged it proper to relinquiſh them altogether, notwithſtanding they were grounded upon eighty-five obſervations, made within the courſe of fifteen days.

The peak is covered with ſnow from the great glacier to the ſummit, but the thickneſs of the ſnow gradually diminiſhes, and becomes very inconſiderable towards the top, by reaſon that its trenched form does not admit of an accumulation of them; here indeed they did not appear to me more than three metres in depth; their conſiſtence is both thin and light, and it is but ſlightly they incorporate themſelves with the extremity of the ice; while at the ſame time the thaws here are of too ſhort a duration to impregnate them with water; and the ſmall quantity which gathers during the fine days of ſummer runs quickly off by two outlets; but on the northern declivity theſe ſnows take, by degrees, an extraordinary conſiſtence, and quickly transform themſelves into a vaſt glacier, which deſcends to the border of the lake, from a vertical height of eight hundred metres.

Contrary to this, on the ſouth of the peak the ſoil was diſtinguiſhable, a circumſtance to be attributed leſs to the force or action of the heat, than to the extreme precipitancy of its ſteep. The ſnows cannot here ſupport themſelves, but are continually falling from the ſummit of the mountain, on a deſcent ſituated ſix or ſeven hundred metres beneath, and theſe form an ice conſiderable enough to reſiſt the direct and reverberated heat to which this ſituation expoſes it.

The uncovered part of the ſummit preſented to my view no entire rock, no regular bed; it appeared only a maſs of ruins, all of the ſame ſpecies of ſtone viz. a compact, calcareous, black, and fetid ſtone, which inſinuates, or inter-twines itſelf into the beds of ſand-ſtone and ſhell lime-ſtone. I examined it here with an attention,

proportioned to the importance its ſituation gave it. It is of a fine grain; a ſpecies of marble, compoſed almoſt entirely of carbonated lime, without any mixture of argil, yet you may diſcover, by the aid of a microſcope, in the reſidue left by the nitrous acid, after the diſſolution of the calcareous part, a quantity of very fine quartzoſe ſand. This ſtone, particularly the interior of it, is decidedly black; but its blackneſs quickly goes off, when expoſed either to the fire or air, though it will reſiſt acids. I had fancied I diſcovered in it the fetid principle: it totally left it during its diſſolving, without the carbonic gaz contracting the ſmell in its evaporation. Mr. Vauquelin was eager to afford me his aſſiſtance, more cloſely to examine the properties of this ſtone. He diſcovered in it, as I did, not only a nauſeous but a cadaverous ſmell, unfolded by trituration; he found no argil in it, but ſome ſiliceous particles, evidently belonging to the ſand; which, as I have already mentioned, is found in its compoſition. The black reſidue is a compoſition of ſand, carbon and iron; the two latter ſubſtances have the appearance of being intimately combined with the carbonate of lime. The carbon conſtituted not more than a 35th part of the portion of the ſtone he made his experiment upon: with reſpect to the fetid principle, he concludes it to be produced by a ſubſtance of the nature of gaz, which evaporates in the pulveriſation and diſſolution of the ſtone. Perhaps it exiſts in the carbonic acid, but it marks its properties. Further, the analogy of this ſmell with that is diſtinguiſhable in certain black marbles, in which he has afterwards diſcovered a bitumen inconteſtably of animal nature, inclines him to believe that it has here no other origin.

This laſt conjecture is aſſuredly well ſupported by the marvellous deſtruction of marine animals, which took place at the firſt formation of theſe mountains. Neither is this cadaverous fetidity peculiar to the beds of marble there met with; it is every where attendant on the carbonate of lime, and is diſcoverable by breaking the free-ſtone itſelf, of which the carbonate principle is the moſt inconſiderable part; as ſand is diſcovered even in marbles, where we have the leaſt reaſon to expect its preſence. All the maſſes are a mixed aſſemblage of materials, of a correſpondent nature; ſand, fetid carbonated lime, clay, ſhells, aſſociated in all poſſible proportions, the ſport of particular accidents, modifying throughout the influence of general cauſes; ſuch are the elements of all theſe beds, and veins, which, with ſo much ſeeming caprice, replace and ſucceed each other with ſo much irregularity. If, in the various fragments that I have collected on the ſummit, I have not obſerved organized fragments, their preſence is not leſs atteſted by the fetidity reſulting from the mixture of their ſofter parts, than in the neighbouring beds by the conſervation of their ſkeletons. It is not improbable, but by a very diligent examination ſome veſtiges may be diſcovered, as we obſerve here and there in beds of the ſame nature on Mont Pinede: but ſtone of this compact quality ordinarily contains very few organic fragments; and we find the quantity in all the beds, of which theſe mountains are compoſed, is conſtantly proportioned to the ſand or clay contained in them; but the beds of ſhells are not diſtant; they encircle every where the veins with a compact calx; I have met with them a little below the ſummit; and they ſhew themſelves on every face of the peak. Theſe extendings are perceptible in all the mountains, ranged on the ſame mineralogical parallel; and if among all theſe collateral beds, vertically arranged, the preeminence is given to beds of compact calx, which, nevertheleſs, conſtitute the ſmalleſt portion of their compoſition, it is becauſe the beds of this order are ſuperior in durability to brittle free-ſtone and decayed marls.

From the top of Mont Perdu the eye embraces at once the whole ſyſtem of mountains, in aſpect reſembling each other, and recogniſes the ſame conſtitution in all that riſe above the ordinary heights. The ſyſtem is an extended ſeries of ſummits, the beds

of which arrange themſelves upon one and the ſame line, in a parallel direction with the chain, dividing the immenſe horizon in two parts, as different in their levels, as the mountains which command them are diſtinct in form.

To the north, the primitive mountains, which conſtitute the axis of the chain, lift up their heads. Their ſharp and rugged ſummits cloſely encircle and form a belt of more than four myriametres (leagues) of tranſverſal thickneſs, whoſe elevation totally intercepts the view of the French plains: ſo inſenſibly progreſſive is their ſinking on this ſide, that this vaſt belt compoſes itſelf of ſeven or eight gradations of heights, gradually leſſening, ſo that the ſouth peak of Bagneres, whoſe ſtation is in the laſt viſible range, is only five hundred metres below Mont Perdu.

To the ſouth, the view is quite different; here they appear to ſink on a ſudden. A precipice preſents itſelf of from one thouſand to one thouſand one hundred metres; the bottom of which conſtitutes the ſummit of the higheſt mountains in Spain; none of which attain to two thouſand five hundred metres of abſolute elevation, and quickly degenerates into low round topped hills, beyond which opens the immenſe perſpective of the plains of Arragon.

But what more particularly attracted my attention was this meridional belt of the Pyrenees, ſo nicely divided into two diſtinct parts. The neighbouring plains opened to my view, the long ridges, and opening valleys which ordinarily form the calcareous ſides on the extremities of great chains. The belt, on the contrary, attached to Mont Perdu, and which is evidently an appendant of it, preſerves the groteſque appearance which characterizes every appendage of this ſingular mountain. It is a vaſt extended platform, or terrace, the ſurface of which, viewed from this elevation, ſeems nearly level. Some ſmall protuberances picture ſo many little and gently riſing hills, ſeparating ſome large, but not deep valleys; but in the midſt of theſe ſuperficial inequalities, four or five enormous cleſts open their ponderous jaws, the walls of which are extremely vertical. They diverge in their openings, from the baſe of the peak, and extend to the boundaries of the platform; the protuberances and valleys of which they indifferently divide, as they divide themſelves from their very foundations. They abſorb alſo the waters, and thick foreſts lye concealed at their bottoms. Theſe clefts are, in appearance, ſo recently formed, that one would imagine them the work of yeſterday, and have ſo exactly preſerved their ſharp and returning angles, their projections, and indentings, the windings of their diviſions, and the undulations of their ſummits, as to induce a belief they only waited a new effort of that power which ſeparated them to re-unite them.

It was deſireable more minutely to examine theſe chaſms, but we could not reſolve to deſcend from the ſummit; this precipice is one of thoſe not to be braved with impunity: hence we decided upon a circuitous rout of twelve or fifteen leagues, to endeavour to find an entrance to them, either in the Val-de-Broto, or in that of Fanlo; and retook our way by the cataracts of Béouſſe, to be certain at leaſt of paſſing the night in a place where it might be poſſible to make a fire.

It was at one o'clock I began to deſcend from the ſummit, after having made a ſecond obſervation with the barometer, but this was not made at Tarbes. Beſide, my inſtruments had not very ſenſibly varied. — I had continued near two hours upon this ſummit, and during all this time, no being that had life came within reach of my ſight, excepting an eagle flying with ſuch an inconceivable rapidity againſt the current of the wind, that the ſpace of a minute veiled him from my eyes.

It is with the utmoſt difficulty, we ourſelves could ſtruggle with the impetuoſity of this wind, which an eagle could ſo triumphantly encounter; and the cold too we experienced from it was almoſt inſupportable. No wind diminiſhes ſo quickly the ſenſible

heat, as a ſouth wind, when we are expoſed to its action in the higher regions of the atmoſphere. It derives this property from its dryneſs and velocity, which entices and forwards the evaporation of bodies ſuſceptible of its influence. The thermometer was not low, yet we were almoſt frozen, but this was all the inconvenience I felt; we breathed without difficulty in this rarified air, found by many ſo inſufficient for reſpiration. I have been myſelf more than once or twice witneſs to perſons of hale vigorous conſtitutions being obliged to forego proceeding to heights much beneath this—even Sauſſure, upon the defile of the Giant, where the air was by no means ſo rarified, experienced an oppreſſion in breathing, by ſomewhat more than common exertion, but here we felt nothing of the kind. The pulſe only indicated an alteration, which was independent of the agitation occaſioned by the labour of the journey—reſt did not quiet it—all the time we were upon the ſummit, it was low, dry, and extended, and beat at a rate of five to four—the fever evidently proved the uneaſineſs we ſhould have experienced at a greater height; but in the manner we were affected, it produced an effect very different to what another degree of elevation would have done. So far from occaſioning any weakneſs, it ſeemed rather to add to my ſtrength, and invigorate my ſpirits. Vegetation prevailed almoſt to the very ſummit of Mont Perdu. I ſhall content myſelf with pointing out the moſt remarkable ſtations of it.

Upon its ſouthern ſide, the vegetation or growth of trees ceaſed at two thouſand one hundred and fifty metres, or one thouſand one hundred toiſes—theſe were a ſpecies of Scotch pines—ſtill higher ſhrubs ſeemed to thrive with much vigour; the juniper endures at the higheſt, and leaves the *rhododendron* in the rear. Among theſe ſhrubs I noticed the *ciſtus roſcus*, of Jacquin, growing a little below the defile of Niſele; and to this point we meet with a very vigorous and herbaceous plant, known by the name of *cnicus ſpinoſiſſimus* of Villars, which has an appearance different from that of Linnæus: I ſent ſome of the ſeeds of it to Mr. Cels.

At the defile of Niſcle, that is to ſay, at the height of two thouſand five hundred and ſixteen metres, or one thouſand two hundred and ninety-one toiſes; the ſurface is covered with verdure; and the *potentilla lupinoides*, of Willdenow, and the *ranunculus montanus*, of the ſame author, are both found in abundance here. Theſe two plants are conſtantly Alpine in the Pyrenees; the firſt particularly ſo perhaps, if it is really different from the *potentilla valderia*.

At one hundred and fifty or two hundred metres higher, appeared the *ranunculus parnaſſiafolius*; this rare ſpecies is very common here. I remarked that I met with it but three times in the upper Pyrenees, and then always in ſituations of preciſely the ſame elevation. Above this ſtation, and until you reach the upper terrace, all is permanent or moveable wrecks of ſnows; but at the terrace vegetation re-appears: and there are even ſome graſſes, and common *ſaxifrages* to be met with.

A check however is once more given to vegetation by the great glacier; yet upon rocks under the ſhelter of the peak, hard and naked as they are, you diſcover a ſpecies of turf of *ſaxifraga groënlandica et androſacea*, and ſome tufts of the *artemiſia rupeſtris* of La Marck: theſe plants are ſmall but vigorous; after all, I have gathered round the peak a *ceraſtium*, conſidered by many botaniſts as the *alpinum* of Linnæus, and the *aretia alpina* with roſe flowers, drawn by Jacquin; they were both in their higheſt bloom, and never did I behold the latter in ſo much vigour and beauty.

Theſe latter plants grew ſo near the ſummit, that one cannot doubt but they would eſtabliſh themſelves there but for the moving fragments, which invincibly, as it were, repulſe them; the lichens even will ſcarcely faſten to theſe fragments, and I could but

diſtinguiſh a few of thoſe of the nature of cruſtaceous lithophages, which every where have a diſpoſition to faſten on ſtones of this ſpecies.

However the moſt perfect plants which take growth at the greateſt height and under the ſame latitude are thoſe which I have juſt particularized. The platform and its immenſe clefts were now what remained for me to explore. I reached Gavarnie on the 20th Auguſt, and on the following day paſſed the port, the leſs elevated, the eaſieſt and moſt frequented paſſage over this part of the Pyrenees, notwithſtanding it is found to be, by the meaſurement of ſome engineers, one thouſand one hundred and ninety-ſix toiſes high, and the mean of two barometrical obſervations, varying but little from each other, fixes it at two thouſand three hundred and twenty-three metres, which is not more than ſeven metres leſs—hence it is evident this defile as much exceeds St. Gothard in elevation, as the Port de Pinede does St. Bernard; and in fact the great maſs of the Upper Pyrenees, exceed in height that of the higher Alps, although the elevations of the peaks which command them, are much leſs.

I now deſcended to the Spaniſh Hoſpital of Boucharo, in elevation correſponding with that of Gavarnie, viz. one thouſand four hundred and forty-four metres or ſeven hundred and forty-one toiſes. Here I found the platform which roſe upon my left abſolutely inacceſſible, and conſequently found it neceſſary to range the valley of Broto, to diſcover if poſſible an entrance into ſome of the clefts; in our ſearch we arrived at Torla, a conſiderable village at about a league and a half diſtance from Boucharo; here I perceived to the eaſt an opening into a large valley, which penetrated into the platform, and which is known by the name of the Val d'Ordeſa, and entirely uninhabited, I made my way to it by fording the Ara, and was preſently ſatisfied I had entered one of the clefts I had contemplated from Mont Perdu. Its aperture is at the ſummit of Torla, which by my barometrical obſervations I found to be one thouſand and eighty-one metres, or five hundred and fifty-ſix toiſes. I rambled in this cleft for four hours, always under the ſhade of a thick ſtately foreſt, and incloſed between vertical walls of dreadful elevation. The day was drawing towards its cloſe when we reached the extremity of the cleft; the platform was ſtill above our heads, ſurrounded with thoſe walls ſo impoſſible to climb, which determined us to paſs the night under the ſhelter of a rock overſpread with tufts of the *geniſta luſitanica* a very rare ſhrub, which we cut to light and feed our fire. We found the height of this ſtation to be nine hundred and twenty-five toiſes.

At the break of the following day we proceeded to reconnoitre the walls, which after two unſucceſsful attempts and not without imminent danger, we ſcaled with our hands and feet. Having attained the platform, the face of every thing ſeemed changed around us, and in ſuch a manner that we hardly knew where we were. Mont Perdu, the Cylinder, its walls and clefts, were before us, but we were enabled to ſingle them out from amidſt the chaos of rocks ſo piled upon each other; it was neceſſary then I ſhould traverſe the platform to adjuſt my obſervations with thoſe I had made on the ſummit.

After more than once conſulting the barometer on different ſituations of the platform, its mean elevation I found to be two thouſand four hundred and thirty metres, or ſomething more than one thouſand two hundred toiſes. This height, compared with thoſe I had taken at the bottom of the valley, gives an advantage over its upper extremity of five hundred and thirty-ſix metres, and is one thouſand two hundred and fifty ſeven metres above its mouth, ſo that the mean depth of the cleft will be eight hundred and ninety-ſix metres, or four hundred and fifty-nine toiſes.

Having now ranged in two directions the meridional ſide of this ſhell-compoſed chain, I will in a few words give the reſult of my obſervations. With reſpect to the general diſpoſition

diſpoſition of the ſurface or ground, it is certain that the ſteeps are much more precipitous on the ſouth than north; the mountains too ſink faſter, and the valleys are deeper, though at the ſame time this ſide of the chain has leſs tranſverſal breadth than the other, and the ſurface of this part of Spain is higher than the correſponding ſurface of France. As to the nature of theſe mountains, they are all ſecondary; the laſt primitive materials I noticed were in the Port of Gavarnie: here at its utmoſt elevation we find granite, and we afterwards leave to the north limeſtone, and afterwards large very inclining ſhelves of *grauwakke*, alternating with flakes of *grauwacken-ſchieffer*, the latter is very much intermixed with wrecks of aquatic *monocotyledones* plants, whoſe forms are frequently ſpread with a pyritous varniſh; it is, we know, in this ſpecies of rock that the moſt ancient remains of organiſed beings are to be met with, beyond all is compoſed in ſome ſort, of two elements; gravel more or leſs coarſe, and fetid limeſtone, more or leſs polluted with clay, both mixed in all proportions, from the pudding and the freeſtone, where the union is hardly diſcernible, to the compact limeſtone in which the ſand is with difficulty recogniſed; but with this difference, that the beds wherein flint and ſand predominate conſtitute the greateſt portion of the mountains, and compact limeſtone is ſeldom found there but in ſmall, irregular, and ſhelving beds; finally marine bodies are chiefly diſcovered in beds compoſed of ſand of a moderate fineneſs, and in mean proportion, few are met with in freeſtone of groſs quality, and fewer yet in marbles, and among the number of foſſils, the ſpecies in which they moſt prevail is that of the *lenticulares numiſmales*, and here they are ſo abundant as to ſtrike minds the moſt accuſtomed to the contemplation of the deſtruction of nature. I have met with them of three dimenſions, and they appear to conſtitute as many diſtinct ſpecies; the diameter of the ſmalleſt rarely exceeds two millimetres, and is frequently much leſs; the firſt is found upon the ſummit of Mont Perdu, and appears to have ſuffered from tranſportation, and its exterior forms are greatly defaced; the ſecond is found along the Val de Broto even to the deepeſt part of the Val d'Ordeſa, it takes its reſidence in the inferior or lower beds, and diſcovers itſelf evidently enough by the tubercles on its ſurface, and internal ſpires: its diameter attains to about half an inch; the third is about an inch and a half in diameter, and is found in the loweſt beds, below Torla, towards the plain.

Further reſpecting the diſpoſition of all their materials, it is too wonderful in the hiſtory of ſecondary mountains to be paſſed over, particularly the range of Marbore and Mont Perdu, the beds of which are arranged in ſuch a manner as very frequently to take a vertical ſituation, and the moſt elevated ſummits of this mineralogical parallel are formed of beds thus diſpoſed; but we ſcarcely find ourſelves in the Val de Broto, when the beds become horizontal, without a poſſibility of diſcovering their relative poſitions, or where the change begins. The horizontal beds are very precipitous, like thoſe which are vertical, and like them are vertically divided by fiſſures croſſing from one ſide to the other. We might in more than one place be eaſily deceived, and take theſe trenches for beds, if we were not particular in noticing the order of the upper poſition of their materials. It is this diſpoſition to divide itſelf vertically, however conſtructed its beds, which in a very eminent degree characterizes the chain of Mont Perdu and all its dependances; and it ariſes from the ſpontaneous diviſion of its beds into ſmall ſolids, the form of which tends more or leſs to a rectangular parallelopiped, and there is even in the ſand which incorporates itſelf in theſe beds, an apparent tendency to a ſimilar diviſion, which has been remarked frequently in the freeſtones of other parts of Europe. But what in other places would be conſidered a phenomenon of no magnitude, and comprehended by a very curſory view, takes here a character for grandeur ſo prodigious, that even the acknowledged proceedings of nature appear at firſt incompetent to the explanation

tion of ſuch uncommon forms. Further in no part were theſe forms ſo impoſing as in thoſe great clefts I had juſt explored. Their ſurface is a ſucceſſion of ſteps perfectly horizontal, and formed by beds of freeſtone, with which we obſerved intermixed the red freeſtone, conſidered by geologiſts as the moſt ancient of the globe. Here the torrents are ſo regular in their fall, that the whole paſſage they make to themſelves ſeems to be the work of man. The poſitions too of theſe immenſe fiſſures, diſpoſed into ſtories of prodigious elevation, and on every ſide of us loſt to our ſight, their perpendicular materials, colour, and joinings, ſo much recall to our minds ſtructures raiſed by the hand of man, that we imagine ourſelves contemplating the ruins of ſome immenſe edifice.

The pudding ſtone and freeſtone conſtitute the largeſt portion of theſe walls; but the compact limeſtone ſeparates them here and there in large ſtrata; upon the higher landings theſe are particularly obſerved in ſmall beds, not difficult to be diſtinguiſhed, and always horizontal in their poſition.

The firſt beds I noticed upon the platform were yet horizontal, and are compoſed of a pudding ſtone, in which the flints and ſand form in the calcareous ſand very irregular undulating veins.

But at the approach of the peak the poſition of the beds are entirely changed. At the baſe of Mont Perdu I found the ſhell-compoſed beds varying themſelves to the ſouth, and dipping to the north on an angle of 45°. an inclination the very oppoſite to that of ſimilar beds which conſtitute the northern baſe of the ſame peak. It is therefore certain that the beds of this mountain are, as it were, an open fan, the vertical rays of which conſtitute its ſummit; a very ſingular diſpoſition, and an inverſion of that which a riſe or burſt * could have produced. It is further certain, that the beds arranged towards the peaks are preciſely the ſhorteſt, the moſt irregular, and intertwined; and that there is a coherency and regularity in thoſe beds very proportional to their approach to a perfect horizontal poſition.

We cannot doubt that the latter are in their natural and original poſition, and that they owe their regularity to the ſoil upon which they have been depoſited.

Beſides the waters by which they were collected being turbulent, have by turns thrown up calcareous ſlime, ſands, and heavy flints, and mixed their various materials with an effort, the ſigns of which cannot be miſtaken.

I have already in another place attempted to eſtabliſh the fact, that the courſe of theſe waters was rapidly impelled in a direction from the ſouth-weſt to the north-eaſt, and this is ſtrongly here evinced by the poſition of the different maſſes and the ſituation of the ſteeps. The force then of theſe currents, upon the ſouthern face of the primitive chain, would naturally lodge the matter they accumulated very irregularly upon its ſides, not leſs on account of the inclination and ruggedneſs of the ſurface which received it, as by reaſon of the agitation, whirlpools, and ſwelling of the waves, by which it was impelled along.

The irregular beds which theſe tumultuary impulſions occaſioned, being at firſt unſtably lodged upon very oblique planes, have removed from them, as ſoon as they had received a conſiderable addition to their bulk and weight; and it is natural to imagine that the moſt inclined of theſe beds muſt have fallen upon the regular depoſits beneath, and that ſeveral of them have maintained an hold upon the lower trenches. A movement of this nature is more eaſily imagined than an eruption, the cauſes of which muſt be looked for in ſome vague hypotheſis, and whoſe natural effect would be rather to lift up the beds in ſhifts, upon each other, than ſpread them out like a fan.

Soulevement.

In the mean time one of the greateſt difficulties yet remains unaccounted for; it is not eaſy to comprehend how ſuch maſſes, evidently as it were, turned upſide down, have taken their ſtations ſeveral hundred metres above the ſummits of the mountains, from whence we might believe them to have been thrown down. Has it then ariſen from the ſinkings that have lowered, as there are many circumſtances to induce a belief, the northern mountains? or have their ſummits been ſubjected to a more rapid waſte, as other facts authorize us to imagine? Let us however confeſs, there is nothing clearly to be depended upon, excepting that ſome extraordinary convulſion of nature has ſubjected the higher beds of Mont Perdu to a change of poſition.

Another circumſtance is alſo clear, and that is, that this convulſion has originated beneath the waters, as is evident from thoſe upper diſpoſed ſhelves, on the ſummit of the overturned beds; which upper depoſites may have occupied many vacuities, enlarged many ridges, and ſtrongly cemented the crumbling maſſes with the compreſſed ones.

The firſt valleys, the veſtiges of which are ſufficiently diſtinguiſhable, have been formed upon theſe mountains by the retiring of the waters, and theſe waters, having once found their natural level, have left theſe maſſes to diſiccation, and their natural weight; the general or partial ſinkings too of theſe maſſes, have occaſioned the great ſouthern clefts; and probably the deep valleys to the north and weſt, which divide by diverging, having always Mont Perdu for their centre.

Doubtleſs theſe clefts have at firſt been no other than narrow fiſſures, and by degrees, ſince enlarged by the fall of their walls; the varied poſition of the beds to the north of Mont Perdu, and the diverſity of the matter ſeated upon them, has determined irregularly this enlargement; and the valleys have expanded themſelves from their bottoms to their edges in a multitude of different angles: to the ſouth on the contrary, the tendency of the beds in every way vertically to divide themſelves, never fails to leave behind their fallen ſurfaces perpendicular craggs; and the deſtruction acting always in the ſame manner, upon ſubſtances always ſimilar, has increaſed the fiſſures by ſections parallel to their firſt line, inſomuch that their projecting and returning angles have every where retained their original correſpondence.

I will not extend theſe reflections farther; what I have already ſaid is ſufficient for the ſingularities of one mountain; but this mountain is not only the higheſt of the Pyrenees, it is alſo the moſt elevated point of our hemiſphere whereon organic wrecks have been diſcovered; it is, in a word, of all the known mountains, the laſt labours of the ſea, in its volume the moſt conſiderable, and the moſt extraordinary from its ſtructure. A ground like this is claſſical for the ſtudy of ſecondary mountains, and the hiſtory of the globe. It will afford a reiterated exerciſe to the ſagacity of the ; and, from what I have myſelf advanced regarding it, it will be from having exhauſted its geology.

END OF THE FOURTH VOLUME.

Strahan and Preſton,
Printers-Street, London.